<Agenda Friday, April 13/>

08.30-09.20 DOORS OPEN

09.20-09.30 ROOM N10 | ON STREAMING N11: OPENING BY CODEMOTION

KEYNOTES

09.30-09.45 ROOM N10 | ON STREAMING N11: The omnichannel e-Commerce revolution by Dirk Pinamonti (Nexi Payments)

09.45-10.00 ROOM N10 | ON STREAMING N11: Taking Machine Learning to the Next Level by Giovanni Galloro (Google)

10.00-10.15 ROOM N10 | ON STREAMING N11: Re-designing an API to reach global scale by Stan Polu (Stripe)

10.30-11.10 ROOM N10: The Power of the Paradigm by Douglas Crockford | ROOM N11: Billion-Dollar Foresight by Richard Feldman

11.10-11.30 COFFEE BREAK

11.30 – 12.10

Room N10

#FRONT-END DEV
Mind-controlling the Web with Brain-Computer Interfaces
Alex Castillo (Netflix)
Language: English - Level: Intermediate

What comes after the keyboard and the mouse? More advanced interfaces that allow more effective communication between human and machines, specifically those that tap into the brain. So, let's plugin the human brain to the browser and build a better web. The human body is a ocean of electricity. Billions of neurons are constantly engaging as our thoughts go from one state to the next. Come see how we can tap into this data generated by human cells in JavaScript, and how to get started in the NeuroTech community.

Room N11

#AI/MACHINE LEARNING
SQL and TensorFlow: Enabling "smart" queries on a data warehouse
Felipe Hoffa (Google)
Language: English - Level: Intermediate

BigQuery is Google's fully managed, petabyte scale data warehouse. It's User Defined Function realizes "smart" queries with the power of machine learning, such as similarity search or recommendation on images or documents with feature vectors and neural network prediction. In this session we will see BigQuery and TensorFlow enables a powerful "data warehouse + ML" solution - analyzing text and pictures.

Room N1

#INSPIRATIONAL
Everything is quantum!
Jaya Baloo (KPN)
Language: English - Level: For everyone

As the race for quantum computing systems rapidly evolves, the threat to modern cryptography becomes more pressing. There must be new strategies and clear options to ensure data protection for the near and long term. The presentation will discuss current developments and projects in this area, which is set against the background of ever more persistent government surveillance.

Room N3

#GAME DEV
A revolution is coming! Writing performant and safe multi-threaded code in Unity
Ciro Continisio (Unity Technologies)
Language: English - Level: Advanced

In Unity 2018, a revolution is coming to the way developers will be able to code their complex game physics, AI, and graphics. With the C# Job System, you have full control of multi-threaded code, being able to distribute load over multiple cores while at the same time being protected against race conditions. We'll go over more information on the C# Job System, and view a small practical demo on how to use it (with code).

Room N5

#SOFTWARE ARCHITECTURES
Leverage HTTP to deliver cacheable websites
Thijs Feryn (Combell)
Language: English - Level: Intermediate

Most of us are familiar with HTTP, but when it actually comes to creating cacheable web content, there is still a lot to be learned. In this presentation I will show you how to leverage specific mechanism to achieve a good hit rate without losing touch with some of the challenges of real-life web projects. Keywords: cache control, cache variations, conditional requests, stateful content, HTTP fragments, invalidation. The goals is to empower developers to control the behavior of reverse caching proxies like Varnish, Content Delivery Networks, or even browser cache, using the power of HTTP.

Room N12

#DEVOPS/CONTAINER
Load-balancing high-available web-app with Docker Swarm cluster
Simone Soldateschi (Slack)
Language: English - Level: Intermediate

This talk explains how to leverage Docker Engine with Swarm mode to run high-available web-application in the Cloud. The latest Docker Engine version (1.12+) comes with interesting features that streamline setting-up new cluster and maintenance tasks for Ops. Throughout the talk engineers will learn how to set up a new Docker Swarm cluster, scale in and out and make nodes join and leave cluster in automated fashion. Furthermore single region and multi-region cluster scenarios will be discussed.

Room N13

#CLOUD/SERVERLESS
Open Source Serverless: a practical view
Gabriele Provinciali (Oracle)
Luca Postacchini (Oracle)
Language: Italian - Level: Intermediate

Il talk, basato su esempi pratici, esplora le caratteristiche di una piattaforma serverless Open Source (fnproject.io) associando l'attività di sviluppo software a tre temi fondamentali: la capacità di utilizzare contemporaneamente linguaggi e run-time differenti (Poliglottismo), la possibilità di usare - e riusare - un meccanismo di packaging elegante e diffuso (Docker), l'integrazione con Kubernetes e la flessibilità di utilizzo nel Cloud, on-premise o sul proprio laptop (Ubiquità).

Room N14

#DEVOPS/CONTAINER
DevOps in a multicloud environment with CloudCenter
Luca Relandini (Cisco Systems)
Stefano Gioia (Cisco)
Language: English - Level: Intermediate

Would you like to provision a complete, fully configured DevOps environment with a single request? Or to get your application deployed automatically, in any cloud, everytime you commit a source edit? A powerful demo of how quick you can get it with CloudCenter: a single click to get a new source code repository (e.g. SVN, GitLab), a Jenkins orchestrator, an artifact repository (e.g. JFrog Artifactory or a web server) deployed and integrated end to end. After it's done, we'll see how the CI/CD process uses CloudCenter itself to deploy a web application on any cloud.

Room DS1

#SECURITY
IoT exploitation: from memory corruption to code execution
Marco Romano (Synack)
Language: Italian - Level: Intermediate

Attraverso un "IoT pentester's diary", analizzeremo i passaggi chiave di un penetration test su una IP webcam, che ci porterà dall'analisi delle superfici di attacco, all'individuazione di una vulnerabilità reale. Un'introduzione all'exploitation, per spostarci dall'overflow di un buffer all'esecuzione remota di codice.

12.30 – 13.10

Room N10

#CLOUD/SERVERLESS
Performance Tales of Serverless
Mikhail Shilkov (Astrata Europe)
Language: English - Level: Intermediate

One promise of Function-as-a-Service model is the ability to scale without limits, up or down, whenever needed. But how does that work in practice? Can AWS Lambda handle thousands of messages per second? How fast can Azure Functions scale up under sudden heavy load? What kind of latency can you expect from Google Cloud Functions? In this session we will establish several performance benchmarks and go through the results of running them on the services of major cloud providers. I will also suggest practical steps to evaluate whether your application profile is suitable for serverless today.

Room N11

#SOFTWARE ARCHITECTURES
dev.privacy: GDPR in a nutshell
Evan Tedeschi (Defenx PLC)
Language: English - Level: Intermediate

Internet changed everyday life, even security of people and companies. The IT industry is asked to respond to possible threats with reliable security solutions. The purpose of the talk is to analyze tools and techniques to produce software that is safe for users and compliant with the law. Real cases of distributed cloud architecture will be analyzed, by combining together programming techniques, network architectures and data structures to realize pseudonymised and zero knowledge data storage and software solutions.

Room N1

#FRONT-END DEV
Unbundling the JavaScript module bundler
Luciano Mammino (Vectra AI)
Language: English - Level: Beginner

Today we all use Webpack (right?), but I remember a time when you had to manually copy-paste JavaScript files to create a package of libraries you could use in your frontend application. Many years have passed since then and the landscape of module bundlers evolved significantly along with the evolution of JavaScript and Node.js. In this talk, I will try to uncover some JavaScript module history and illustrate how a module bundler actually works, so that the next time you will use Webpack you will be able to understand what's going on behind the scenes.

Room N3

#GAME DEV
Walking Around: The Quest for lost Gameplay
Mattia Traverso (Freelance)
Language: English - Level: Intermediate

In 1985 an Italian plumber named Mario changed the world. Elegant Mechanics, Level Design, Fine-tuned Controls... A standard was born for what video games should be. Game Design went from Alchemy unknown to many, to pseudo-Science with clear rules. 28 years later, "Gone Home" is released on Steam. The game features no challenge. No levels. No real "gameplay mechanics". No game over. And certainly, no Italian plumbers! A pragmatic look at a new era of Game Design, from the Lead Designer of "Last Day of June".

Room N5

#MOBILE
Kotlin for Android Developers
Victor Kropp (JetBrains)
Language: English - Level: Intermediate

Kotlin is a programming language developed by JetBrains that targets multiple platforms including the JVM, JavaScript, and native binaries. A year ago it has been adopted as an officially supported language for Android development. Kotlin offers clean and concise syntax, interoperability, both object-oriented and functional code constructs, and a lot of other cool features with little or no overhead. Let's find out together why developers love this language and how it helps them to be productive and have fun!

Room N12

#LANGUAGES
Monitoring and Pre-emptive support: The road to five nines with Erlang & Elixir
Francesco Cesarini (Erlang Solutions)
Language: English - Level: Beginner

You've heard about systems achieving five nines availability with Erlang. That is 5.26 minutes of down time per year, software upgrades included. And we've been doing it at a fraction of the effort of conventional technologies. It does not happen on its own, however, just because you are using Erlang or Elixir and running them on the beam Virtual Machine. In this talk, we will cover approaches and best practices in systems which never stop, allow us to monitor them and practice pre-emptive support.

Room N13

#AI/MACHINE LEARNING
Applied AI: Classify art using DeepLearning
Romeo Kienzler (IBM)
Language: English - Level: Intermediate

In this tutorial we will teach you how DeepLearning Neural Networks work and how to use Keras on top of TensorFlow to create DeepLearning driven AI systems at scale. Without understanding every little detail of linear algebra you will be able to create and train a Convolutional Neural Network on TensorFlow using Keras and scale it on Apache Spark and GPUs using DeepLearning4J, Apache SystemML or Watson Machine Learning

Room N14

#DEVOPS/CONTAINER
Scalable Microservices and Cloud Native Operations with Kubernetes on Google Cloud
Giovanni Galloro (Google)
Language: Italian - Level: Beginner

In this session, we'll walk through how to focus on deploying microservices based applications that are scalable and reliable while Google Kubernetes Engine take care of monitoring, repairing, scaling and updating your Kubernetes cluster.

Room DS1

#SECURITY
Software Defined Radios: Hacking the Invisible
Davide Papini (Elettronica S.p.a.)
Daniele Provenziani (ELT)
Language: English - Level: Intermediate

In our everyday life we are accustomed to use radio communication devices: car key fobs, remote controls, toys etc. Unfortunately these devices are often designed without security in mind, and this is true also for radio communication protocols spread all over the world and often mandatory. In this talk we will get a chance to see how SDRs work and what are the tools they lay out to enthusiasts who are willing to play around a little bit and break things apart to understand how they work. There will be also some live demo with SDRs in place.

13.10-14.10 TAKE YOUR CODEMOTION LUNCH BOX

14.10 – 14.50

Room N10

#BLOCKCHAIN
Blockchain, Bitcoin, Ethereum e Javascript Mining: Monetizzare le proprie Skill da Developer
Marco Casario (Codemotion)
Language: Italian - Level: Beginner

Come poter massimizzare le proprie competenze da Developer per sfruttare la rivoluzione tecnologica che sta portando la Blockchain, le applicazioni decentralizzate e le Criptovalute (Bitcoin, Ethereum, Ripple, etc)? E' questa la domanda a cui ho cercato di rispondermi un paio di anni fa e che ha cambiato drasticamente gran parte della mia vita di "semplice" developer. In questo talk voglio raccontarti la mia esperienza facendo chiarezza su aspetti tecnici riguardanti la blockchain, lo sviluppo su Ethereum (Smart Contracts) e la nuova frontiera del mining Javascript.

Room N11

#LANGUAGES
Using Nicer Programming Languages at Work
Richard Feldman (NoRedInk)
Language: English - Level: For everyone

Over the past 10 years, Richard has used many different programming languages on the job - from the mainstream to the exotic. This talk covers the surprising lessons he's learned about using nicer programming languages at work. How big can the productivity difference be? What strategies can get management on board with taking a chance on a non-mainstream language? What's the impact on the team's ability to hire and retain great programmers? What does it mean for team morale? For ramping up new hires? For legacy code? Come see what a nicer programming language could mean for your team!

Room N1

#DESIGN/UX
How to Lie With Stats and Charts
Andrea Maietta (Wide Care Services)
Language: English - Level: For everyone

Data don't lie. People lie. Some of them unwillingly and with the best intentions, some willingly and with a secret agenda. Most of them lie with statistics. It is indeed common knowledge that there are three kind of lies: lies, damned lies, and statistics. Why is it so? And why do stats and charts happily fall into the realm of not-so-true truths? Why is it so easy to believe someone quoting numbers and percentages, even when they're quoting them wrong? How can you draw a chart to make it say whatever you want? Learn the most common tricks and pitfalls and how to defend yourself from them.

Room N3

#GAME DEV
Machine Learning for videogames in Unity3D
Fabio Corrirossi (Oniride)
Language: English - Level: Intermediate

Machine Learning is everywhere and it's changing the world for good! Learn how to set and train a simple AI from scratch with Unity Machine Learning Agents. From zero to an actual demo in just 40 minutes!

Room N5

#FRONT-END DEV
Do things faster and better with WebAssembly
Sendil Kumar Nellaiyapen (Xebialabs)
Language: English - Level: Intermediate

Do you know you can run your C++ / Rust code in the browser via javascript? Do you know you can speed up the JS performance with your native code? We will see how to do things faster and better with web assembly. Web Assembly the future of the web and experience what it has to offer.

Room N12

#FUNCTIONAL PROGRAMMING
Beyond JavaScript Frameworks: Writing Reliable Web Apps With Elm
Erik Wendel (BEKK Consulting)
Language: English - Level: Intermediate

In times where a jungle of JavaScript frameworks wants to solve every conceivable problem in web app development, Elm offers a different approach. Elm is a functional language that compiles to JavaScript. It has a user-friendly compiler, a sound type system, built-in immutability and lots of other features that come in handy when developing large, hopefully bug-free, single-page apps. While having fun in the process! In this talk you'll see how Elm works and learn how to use it to build a web app. More importantly, you'll learn the pros and cons of using it over a JavaScript-based solution.

Room N13

#BIG DATA
From ICT Event Management to Big Data Management
Roberto Raguseo (Kriu)
Language: English - Level: Advanced

Design innovative solutions that work accurately forever is our mission. From ICT Event Management to Big Data Management. Embracing Big Data is fundamental for driving the Digital Transformation of the Industry. Kriu is bringing the experience gained in the ICT Event Management field to the Big Data. Collecting heterogeneous data and providing actionable insights tailored to different stakeholders needs, is our business.

Room N14

#BIG DATA
Cloud tales: real world CQRS/Event Sourcing - part 1
Andrea Saltarello (Managed Designs S.r.l.)
Lorenzo Barbieri (Microsoft Western Europe)
Language: Italian - Level: Advanced

We recommend attending both parts of this talk since they are closely connected. CQRS and ES are by no means new kids on the block, yet a lot can be told about how to use cloud platforms to unleash their power without having costs soaring. The ingredients list is quite simple: an event store, read model(s) and computing options to run back-end services. Picking up technologies in a cost savvy way, though, isn't trivial due to the amount of viable options: should you go PaaS or IaaS? Where do containers fit in this context? Eager to know our real code based recipe? Don't miss this talk then.

Room DS1

#DEVOPS/CONTAINER
Stop reinventing the wheel with Istio
Mete Atamel (Google)
Language: English - Level: Beginner

Containers provide a consistent environment to run services. Kubernetes help us to manage and scale our container cluster. Good start for a loosely coupled microservices architecture but not enough. How do you control the flow of traffic & enforce policies between services? How do you visualize service dependencies & identify issues? How can you provide verifiable service identities, test for failures? You can implement your own custom solutions or you can rely on Istio, an open platform to connect, manage and secure microservices.

15.10 – 15.50

Room N10

#BLOCKCHAIN
Learn how to build decentralized and serverless html5 applications with EmbarkJS, Ethereum, IPFS and DAT
Alessandro Confetti (ThoughtWorks)
Language: English - Level: Intermediate

Do you have an idea for a startup and don't want to pay for scaling it up? Forget about bandwidth problems, servers to install and pay for, with the power of IPFS, DAT and the blockchain. In this talk, we will explore how to build an HTML5 DAPP (distributed application) with EmbarkJS, and figure out how to rethink servers, storage, messaging, data and payments in a distributed and decentralised way with the help of Ethereum's smart contracts, IPFS and DAT distributed storage.

Room N11

#MICROSERVICES
The Human Side of Microservices
Armagan Amcalar (unu GmbH)
Language: English - Level: Intermediate

"organizations which design systems ... are constrained to produce designs which are copies of the communication structures of these organizations" — Melvin Conway, 1967 Microservices is an architectural shift, a huge topic that demands change in every aspect of software delivery. It is also more than a technical problem — your microservices architecture can be as solid and efficient as your team communication. This talk tries to describe the human aspect of implementing a microservices approach, and how this affects team communication.

Room N1

#FRONT-END DEV
Create flexible React applications using GraphQL APIs
Maurice de Beijer (ABL - The Problem Solver)
Language: English - Level: Intermediate

Using restful APIs can be hard on your React applications. Before you know it, you are doing lots of parallel queries to the server. Using GraphQL instead of REST might help a lot. Instead of downloading many complete resources each component declares its own needs. Then the GraphQL client library then combines these requirements. The result is a single optimized query for the server. In this session, Maurice de Beijer is going to show you how to get started with GraphQL in you React applications.

Room N3

#FUNCTIONAL PROGRAMMING
Getting started with F# development
Enrico Sada (AlmavivA)
Language: Italian - Level: Beginner

The goal of this talk is to help developers interested in F# (strongly-typed functional first language for .NET Runtime/JS) how to start, by showing the rich tooling built by opensource community. Once removed the friction of a new ecosystem is easier to evaluate the F# features It will be shown some common scenarios for devs: from zero to a new web/console app, how to add dependancies, build it, debug it, test it and xplat deployment options to target os or docker. The tools used will be cross platform (VSCode, .NET Core Sdk) and open source.

Room N5

#SOFTWARE ARCHITECTURES
7 Years of DDD: Tackling Complexity in Large-Scale Marketing Systems
Vladik Khononov (Internovus)
Language: English - Level: Intermediate

Turns out Domain-Driven Design works not only for cargo shipping. I'd like to share the story of Plexop. Plexop is a large-scale marketing system that spans dozens of different business domains, from management of ad spaces to sellers' commissions. To implement Plexop we had little resources and a very short time to market. That's why we embraced DDD from day one, and boy did it pay out. I'll show how DDD allowed us to tackle complexities, talk on strategies for defining service boundaries that we tried, and of course, the things that we had to learn the hard way - by making our own mistakes.

Room N12

#INSPIRATIONAL
From Hackathon to Production in a Year
Victor Kropp (JetBrains)
Language: English - Level: For everyone

What makes company culture great? We believe that it's atmosphere of creativity. Every summer we host 48-hours Hackathon at our offices for our employees, where everybody can suggest and implement any crazy idea they have on their minds. It is an excellent opportunity to meet colleagues and try something new. Many Hackathon projects later went into production. I describe how a small team develop, build, maintain and support an application initially introduced as a Hackathon project. I will share best practices we follow to release on schedule and error-free, and why Hackathons are fun!

Room N13

#DEVOPS/CONTAINER
Android meets Docker
Jing Li (mytaxi)
Language: English - Level: Intermediate

CI is an eternal topic in software engineering, it is still evolving for mobile. With an introduction to Docker, and a full-fledged Docker image for Android, this presentation will guide you through all facts about using Docker for Android CI - benefits, limitations, pitfalls, tweaks, and performance. Follow me, you can build your own Acme CI at zero cost. Last but not least, there are some other tips about how Docker could help your mobile engineering.

Room N14

#BIG DATA
Cloud tales: real world CQRS/Event Sourcing - part 2
Andrea Saltarello (Managed Designs S.r.l.)
Lorenzo Barbieri (Microsoft Western Europe)
Language: Italian - Level: Advanced

We recommend attending both parts of this talk since they are closely connected. CQRS and ES are by no means new kids on the block, yet a lot can be told about how to use cloud platforms to unleash their power without having costs soaring. The ingredients list is quite simple: an event store, read model(s) and computing options to run back-end services. Picking up technologies in a cost savvy way, though, isn't trivial due to the amount of viable options: should you go PaaS or IaaS? Where do containers fit in this context? Eager to know our real code based recipe? Don't miss this talk then.

Room DS1

#AI/MACHINE LEARNING
Bringing personalisation to data discovery, Learning to Rank 101
Pere Urbon-Bayes (Freelance)
Language: English - Level: Intermediate

Traditional search engine approaches for providing the most relevant results for a query has been focus on matching the query terms with the words in the documents, mainly TF-IDF and BM25, however with methods are hard to tune for best results and provide no personalisation. This talk will introduce Learning to Rank, a machine learning approach to bring personalisation to search, and it's key concepts, before diving into a real life demo based on elasticsearch and real data. At the end of it you will take home a basic understanding of LTR, applications and enough to start using it.

15.50-16.10 NETWORKING COFFEE

16.10 – 16.50

Room N10

#AI/MACHINE LEARNING
Deep learning beyond the learning
Jörg Schad (Mesosphere)
Language: English - Level: Intermediate

Open Source frameworks such as TensorFlow, MXNet, or PyTorch enable anyone to model and train Deep Neural Networks. While there are many great tutorials and talks showing us the best ways for training models, there is few information on what happens after we have trained our model? How can we store, utilize, and update it? In this talk, we look at the complete Deep Learning Pipeline and looks at topics such as deployments, multi-tenancy, jupyter notebooks, model serving, and more.

Room N11

#SOFTWARE ARCHITECTURES
Surviving Black Friday - A resilience engineering tale
Omri Fima (Sears Israel)
Language: English - Level: Intermediate

The 'Black Friday fail' is the greatest fear of every major online retailer. Since downtime equals money, and in Black Friday it means quite a lot of money. But the sad truth is that a failure of a service is inevitable, and not only on black Friday. So how can we survive a failure of a service when it inevitably fails? In this lecture I will share our approach for SRE. Why we all have misconceptions on how a major website failure unfolds. and how to use tools like chaos testing, gradual rollout, circuit breakers and automatic fallback to protect your system.

Room N1

#SECURITY
Why I've to waste my time on cryptography?
Andrea Pompili (Cy4gate)
Language: Italian - Level: Intermediate

Cryptography is a magic ring of darkness and mistiness, but seems that every time a new attack comes in town, technicians need to evaluate, configure or change something, surviving in the sea of the unawareness or following signals coming from misterious compliance regulations. We'll try to give a little survival guide for this world, which can make us more aware and confident on the future, or at least prepare for the next fashionable attacks. Maybe.

Room N3

#REACTIVE PROGRAMMING
The definite guide to reactive programming in Java
Erwin de Gier (Trifork)
Language: English - Level: Intermediate

Everything is reactive. Your application reacts to the click of a button, an incoming message. But also to the result of a database query. Between these events, you want to process other tasks. Being reactive needs a complete approach. Let's look at the state of reactive programming in Java. Which frameworks are available? Do we have everything to build enterprise grade reactive applications? How to we produce readable and maintainable code? This is the complete overview of reactive programming in Java. We will cover the following libraries: RxJava, Project Reactor, Akka streams.

Room N5

#LANGUAGES
BEAM in Action: Scrivere una web application con Elixir
Gabriele Santomaggio (ioSport)
Claudio D'Alicandro (AdEspresso by Hootsuite)
Language: Italian - Level: Beginner

Elixir è un linguaggio funzionale con una forte propensione alla programmazione concorrente, vanta una robustissima virtual machine battle tested che ci permette di scrivere applicazioni ad alta affidabilità, e grazie al suo particolare paradigma è possibile ottenere questi risultati in maniera semplicissima! Analizzando una piccola web application scopriremo quanto sia facile e divertente la modellazione ad Attori e quanto risulti naturale creare applicazioni distribuite.

Room N12

#DEVOPS/CONTAINER
Docker and .NET Core - Best Friends Forever
Michael Newton (@mavnn ltd)
Language: English - Level: Beginner

The .NET languages have always been top notch in design, with a wide ranging standard library and support for all your enterprise needs. But for those of us with experience in the world outside Windows, the operational side of things was unbelievably painful. Now, with .NET Core that's starting to change. Here we'll work through the process of taking a .NET library and building a CI pipeline from reproducible container based builds through to minimal deployment artifacts.

Room N13

#FRONT-END DEV
Measuring User-centric performance
Leonardo Zizzamia (Plan)
Language: English - Level: Intermediate

User-centric tracking is a model that helps you understand and measure performance so that users can have the best possible experience. With the addition of a few new browser APIs we can measure the First Contentful Paint (FCP), Time to Interactive (TTI) and Component First Paint (CFP). To leverage these new APIs we are going to use Perfume.js (http://zizzamia.github.io/perfume/). It not only helps us measure performance that matters (#perfmatters) but also reports to Google Analytics, ultimately preventing regression through integration in your end-to-end tests.

Room N14

#DESIGN/UX
UX Practitioner's Guide to Cognitive Theory
Anthonia Carter (US-UK Fulbright Commission)
Language: English - Level: Intermediate

We designers create, form, build, and mold, but do we understand the underlying theory which backs up our design choices? Theory provides a rationale to help frame our thinking, but theory alone provides very little understanding of the aesthetics that characterize great design. It is important to understand how theory relates to design practice. Interacting with technology requires many cognitive processes, and this talk will translate cognitive theory principles into interaction design implications.

Room DS1

#MOBILE
Android Things, from mobile apps to physical world
Giovanni Di Gialluca (Open Reply s.r.l)
Stefano Sanna (Open Reply s.r.l)
Language: Italian - Level: Intermediate

The large and vibrant community of Android developers can now leverage all the libraries, services and knowledge to move from mobile towards the IoT world. The key for success is that even the existing code could be shared in the same project to target mobile, wearables and now embedded boards. This talk will explain what Android Things is and many of its features, giving some practical example on how to integrate code for mobile platform.

17.10 – 17.50

Room N10

#MICROSERVICES
The six obstacles of moving to microservices and how to deal with them
Moisés Macero García (The Practical Developer)
Language: English - Level: Intermediate

Migrating to Microservices can easily become a mess, not only because of technical factors but mostly because of human factors: it's a major change in the software culture of a company. In this talk, I'll share my experience as technical lead of an ambitious Microservices-based product, go through the parts we struggled with, and give you some advice on how to deal with some obstacles that you may find: * The Common Patterns Phobia * The Book Club Cult * The Never-Decoupled Story * The Buzz Words Syndrome * The Agile Trap * The Conway's Law Hackers

Room N11

#INSPIRATIONAL
How to be so good they can't ignore you
Alessio Fattorini (Nethesis)
Language: Italian - Level: For everyone

Vuoi avere più controllo sul tuo futuro e non lasciare che altri decidano per te? Hai una passione ma non riesci a coniugarla con il tuo lavoro? Devi imparare a distinguerti e diventare un esperto nel tuo campo. Ma in questo percorso di miglioramento continuo la passione sfortunatamente non basta, servono strategia, costanza ed una diversa mentalità. Non è sufficiente essere bravi, bisogna essere MOLTO bravi. Sulla base della mia esperienza personale, cercherò di delineare un percorso per diventare un esperto, padroneggiare nuovi skill e finire magari per costruirci sopra il tuo futuro.

Room N1

#FUNCTIONAL PROGRAMMING
Immutability is everything!
Francesco Cesarini (Erlang Solutions)
Language: English - Level: Beginner

The functional paradigm has been influencing mainstream languages for decades, making developers more efficient whilst helping reduce maintenance costs. As we are faced with a programming model that needs to scale on multi-core architectures and distributed environemnts, concurrency becomes critical. In these concurrency models, immutability, a key feature of functional programming paradigm will become even more evident. To quote Simon Peyton Jones, future concurrent languages will be functional; they might not be called functional, but the features will be. In this talk, we explain why!

Room N3

#DESIGN/UX
Who's Afraid of Open Design?
Emanuela Damiani (Mozilla, Firefox)
Language: English - Level: Beginner

A design process can be extraordinarily structured, or entirely missing. Either way, it often requires a remarkable number of conversations with all the stakeholders involves, including people from different departments and the users. But, what does happen when we add the unpredictable power of a community? In this talk, I'll share my thoughts, fears and views on working for an open-source product.

Room N5

#BIG DATA
Stateful stream processing made easy with Apache Flink
Alberto Mancini (K-Teq)
Francesca Tosi (K-Teq)
Language: English - Level: Beginner

Apache Flink's powerful and elegant stream oriented API is the natural tool to meet the needs of real-time, or almost real-time, analysis of the huge data volumes arising, for instance, in IoT, analytics and machine learning. Starting from a very introductory definition of what streams are in Flink, we will follow code examples and short theoretical digressions that we will let us discover how to approach concrete problems with the DataStream API and to see Flink at work with tools like Kafka, Zookeeper, HBase and Cassandra.

Room N12

#VR/AR
Immerge yourself in a new Reality
Matteo Valoriani (FifthIngeniunm)
Alessandro Pozone (FifthIngenium)
Language: Italian - Level: Beginner

If you think there's been a lot of talk about Augmented Reality and Virtual Reality this year, 2018 is going to blow you away. ARkit, ARCore, HoloLens, Magic Leap, Oculus and many others are working to transform our Reality with new products and services. Apple, Microsoft, Intel, Google and Facebook are approaching AR/VR from different perspectives and technologies: in this session we will try to understand how these different technologies can work together and create a shared multi device experience.

Room N13

#FRONT-END DEV
The Web Components interoperability challenge
Horacio Gonzalez (OVH)
Language: English - Level: Beginner

Web Components are here, the v1 of the standard is ready, a new world of componentalized web is ahead us. But when you look at it, there are many ways to write them, lots of libs. And you ask yourself if that web component interoperability really works in real life. Does all those different components, work seamless together? We are going to introduce several ways to build your web components (vanilla components, Polymer, Stencil, SkateJS...) and write a component with each one. Then we will put all those components together in a web app showing you that the interoperability is a reality.

Room N14

#FUNCTIONAL PROGRAMMING
Lenses and Prisms in Swift
Elviro Rocca (Facile.it)
Language: English - Level: Advanced

The concept of functional Lens has become pretty popular in functional programming circles, and there are already good contributions for applying lenses to other, traditionally imperative/OO contexts. I'd like to offer a more in depth view on why lenses can be useful in Swift, and also talk about an associated concept called Prism. Let's consider some practical problems and confront an idiomatic/imperative approach to the one based on lenses and prisms.

Room DS1

#CLOUD/SERVERLESS
Una PA agile, funzionale e serverless: si può fare!
Federico Feroldi (Measurence Inc.)
Danilo Spinelli (AgID)
Language: Italian - Level: Intermediate

In questo talk raccontiamo il percorso del team che si è occupato della progettazione e dello sviluppo della piattaforma di messaggistica tra PA e cittadini a scala nazionale, prevista dal Piano Triennale per l'ICT della Pubblica Amministrazione. Quali sono state le difficoltà? Quali le vittorie? Cosa abbiamo imparato da questo percorso? La Pubblica Amministrazione è una macchina complessa, lenta, ma che, se gestita nel modo giusto può generare innovazione e tecnologia allo stato dell'arte.

17.50-18.30 NETWORKING BEER

MEETUPS

18.30 – 19.30

Room N10

#SEE YOU TOMORROW

Room N11

#SEE YOU TOMORROW

Room N1

#SEE YOU TOMORROW

Room N3

#MEETUP
Meetup di GDG Italia
Leonardo Pirro (IQUII)
Michelantonio Trizio (Wideverse)
Carmelo Ventimiglia (Domiconsulting)
Language: Italian - Level: Beginner

I Google Developer Group (GDG) sono una community internazionale di appassionati delle tecnologie: sviluppatori, designer e startupper. Sono suddivisi per città, e GDG Italia è la famiglia che rappresenta tutti i gruppi presenti sul territorio locale. Mike Trizio e Carmelo Ventimiglia introdurranno i GDG, le loro attività e perché è utile e divertente farne parte. Leonardo Pirro invece ci introdurrà Kotlin, un linguaggio di programmazione che ha avuto un crescente successo negli ultimi anni. Analizzeremo le caratteristiche principali del linguaggio e i suoi vantaggi/benefici rispetto a Java.

Room N5

#MEETUP
Meetup di Gruppo Game Jam Roma
Andrea Ferlito (Codemotion)
Giorgio Pomettini (Freelance)
Ivan Preziosi (Radical Fiction)
Language: Italian - Level: Beginner

Meetup della community gamedev di Roma. Due talk in agenda: Giorgio Pomettini - Facciamo un videogioco con Rust. Ivan Preziosi - Sviluppare in Tempi Duri. Ivan ci parla del suo nuovo gioco.

Room N12

#MEETUP
Meetup di Developers Italia
Riccardo Iaconelli (Team per la Trasformazione Digitale)
Alessandro Ranellucci (Pintle-Bit Builders)
Language: Italian - Level: Intermediate

Le community incontrano i responsabili Open Source del Team Digitale! Saremo a disposizione di tutti gli sviluppatori per approfondire gli strumenti tecnologici di sviluppo software per la Pubblica Amministrazione. Si parlerà dello stato di avanzamento delle tecnologie del "sistema operativo del Paese" delineate dal piano triennale, delle linee guida di sviluppo open source e di come partecipare ai progetti. Un'occasione da non perdere, per prendere confidenza con le attività del Team e i tanti progetti portati avanti dalla community di Developers Italia.

Room N13

#MEETUP
Meetup di Angular Roma
Luciano Murruni (Conte.it)
Lorenzo Franceschini (Regione Lazio)
Language: Italian - Level: Intermediate

Le moderne Single Page Application sono costruite utilizzando un framework, ad oggi uno dei framework più utilizzati è Angular. Uno dei principali obiettivi di Angular è quello di creare un ambiente favorevole allo sviluppo di applicazioni complesse, ed uno dei modi per raggiungere questo è quello di dotarsi di un superset di JavaScript, come TypeScript che permette di utilizzare costrutti sintattici più moderni rispetto al codice Vanilla JavaScript. In questo meet-up faremo una panoramica tra back-end e front-end per analizzare una soluzione manutenibile, scalabile e performante.

Room N14

#MEETUP
Meetup di Elixir Roma + Rust Roma
Enrico Risa (OrientDB)
Federico Caprari (AdEspresso)
Language: Italian - Level: Beginner

Elixir è un linguaggio funzionale che gira sulla Erlang VM. Ci permette di scrivere applicazioni scalabili, efficienti e ad alta affidabilità grazie al design unico della virtual machine. Rust è un linguaggio di programmazione di sistema sponsorizzato da Mozilla. Il suo obiettivo principale è quello di scrivere applicazioni che siano sicure, concorrenti e veloci. In questo talk verranno introdotti i due linguaggi e le rispettive caratteristiche, analizzando infine come estendere Elixir scrivendo funzioni native NIFs con Rust, per ottenere massime performance e garanzie di sicurezza.

Room DS1

#SEE YOU TOMORROW

11.30-17.50
Nexi Lab

Room N4

#Codelab

Challenge yourself and (re)build the e-commerce with XPay
Simone Corti
Filippo Dell'Oca
Maurizio Airoldi
Language: Italian
Level: Intermediate

20-30 MINUTES SESSIONS
JOIN US WHEN YOU WANT!

Join this terrific experience together with the latest technologies: experiment with fun and enjoy the thrill of new coding solutions, being involved with the XPay e-commerce revolution!

Nexi's experts are at your disposal during the event to explore the online payment world, discover with them how much do you know about e-commerce integration with funny quests... and bug fixing: in fact some of the code provided has intentional tricky bugs to be fixed!

Catch the bug, deploy with XPay!

The XPay codelab is a trial based code-lab that will show you how to implement the latest e-commerce payment technologies, you'll have at glance:

- **some code examples of XPay platform integration into PHP or Java**
- **direct access to cartasi.it, keyclient.it, nexi.it and all subdomains required to e-commerce operation**
- **a way to handle all online payments methods using XPay**

Thanks to trial & error you'll find the way to implement XPay technology, editing and fixing the examples provided.

After a few minutes of exercise XPay integration will become like a natural skill to you, and you'll be able to build a 100% personalized payment user experience.

The codelab will take place on Friday, April 13th from 11:30am to 5:50pm: come and take a peek at any time, the entrance is free.

The codelab is addressed to web developers, APP developers, UX designers and anyone interested in e-commerce.

11.00-15.00
Kriu Lab

Room N6

#Codelab

Build your smart monitoring solution with Kriu!
Luca Lucarini
Stefano Abalsamo
Giovanni Ascione
Language: English, Italian
Level: Beginner

20-30 MINUTES SESSIONS
JOIN US WHEN YOU WANT!

Come and discover Kriu, the new software to monitor and manage IT Operations. Easy, Free...and performance enhancing :-)

During the codelab you'll learn Kriu's features directly from who designed it and works on it every day. Indeed, Kriu specialists will help you in discovering all the functionalities of Kriu for IT Operations and help you to customise an ICT monitoring process, from raw metrics to problem remediation!

Kriu for IT Operations is a new, free, and flexible performance enhancing IT Event and Correlation Management solution that provides accurate, real-time, and smart information to manage your IT services. Kriu has been designed to help IT Operational teams to perform their tasks and meet IT Managers' needs, therefore its strengths are:

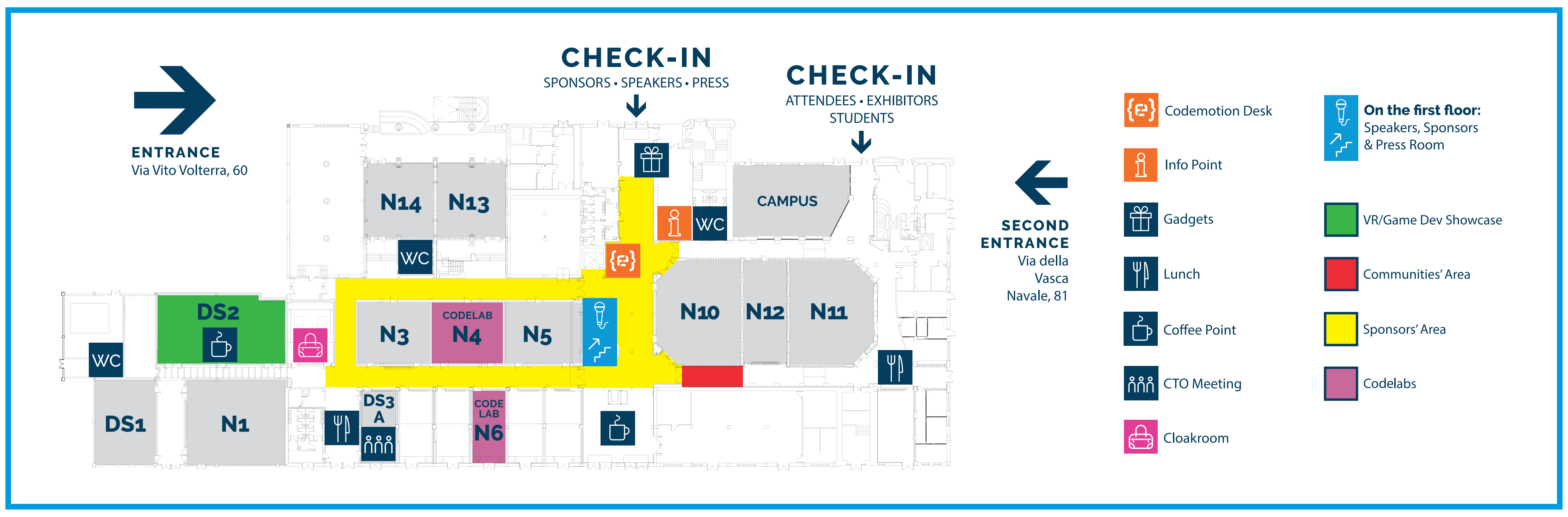
- **the ease of configuration,**
- **a highly scalable modular architecture,**
- **high-performance event processing;**

In this lab, we'll go through the application of IT Operations case studies and the implementation of corrective actions for remediation and/or escalation.

In particular, you will:

- Gain insights of collected events
- Develop your customised incoming rules and remediation actions

The entrance is free, drop by and say hello. We look forward to seeing you there!



Don't miss the opportunity to win a cool gadget at the Codemotion's Desk and a free ticket for Codemotion Berlin 2018!

Download Codemotion's Conference App, scan the QR code on your badge and start collecting points!

Codemotion's GAME

<Agenda **Saturday, April 14**/>

8:30-09:50 DOORS OPEN

09:50-10:00 **ROOM N10 | ON STREAMING N11: OPENING BY CODEMOTION**

KEYNOTES

10.00-10.15 **ROOM N10 | ON STREAMING N11:** OpenTech AI for everyone - how to train, deploy and scale DeepLearning models using Keras, Tensorflow and Apach **by Romeo Kienzler (IBM)**

10.30-11.10 **ROOM N10:** More than a Game **by Amie Dansby**

ROOM N11: My accidental 36 years in video games **by Jeff Minter**

11.10-11.30 COFFEE BREAK

11.30 12.10

Room N10

#AI/MACHINE LEARNING
And Then There Are Algorithms
Danilo Poccia (Amazon Web Services)
Language: English - Level: Intermediate

In machine learning, training large models on a massive amount of data usually improves results. Our customers report, however, that training such models and deploying them is either operationally prohibitive or outright impossible for them. We created a collection of machine learning algorithms that scale to any amount of data, including k-means clustering for data segmentation, factorization machines for recommendations, time-series forecasting, linear regression, topic modeling, and image classification. This talk will discuss those algorithms, understand where and how they can be used.

Room N11

#CLOUD/SERVERLESS
Hop on the serverless adventure
Simona Cotin (Microsoft)
Language: English - Level: Intermediate

Serverless is the new black - I can deploy my application to the cloud without ever worrying about infrastructure. We all remember the days when we had to spend hours and hours configuring and debugging web servers when all we wanted was to just code and test our app. Those days are long gone and it's time for us to unlearn how to provision and manage infrastructure while focusing on building and scaling applications.

Room N1

#FRONT-END DEV
What Service Workers can do
Maurizio Mangione (Accenture)
Language: Italian - Level: Intermediate

Le Progressive Web App sono un insieme di tecnologie che permettono di implementare comportamenti prima possibili solo nelle applicazioni mobile native. Il cuore delle PWA sono i Service Worker, la feature della piattaforma web più interessante e rivoluzionaria dall'uscita delle chiamate AJAX. Durante questo talk scopriremo i segreti dei Service Worker, quello che possono fare e come utilizzarli ora in produzione.

Room N3

#CLOUD/SERVERLESS
Heroku: build, run and scale applications on a real polyglot platform
Nino Guarnacci (Salesforce)
Language: Italian - Level: Intermediate

Tour organizzato tra le verdi colline di Heroku attraverso le numerose funzionalità ed opzioni di stagione offerte da questa piattaforma PaaS 100% Salesforce Cloud, costruita dagli sviluppatori per gli sviluppatori Java, Python, Node... Non un trekking impegnativo, ma un Getting Started Avanzato per uscire dall'aula ed essere in grado di installare, gestire e scalare una applicazione pubblica, gratuitamente su Heroku, e sbadatamente integrare Add-ons aggiuntive come Mongo, Postgres e Salesforce cliccando sul bottone sbagliato.
Sulla via del ritorno Pipeline e Monitoraggio attivo.

Room N5

VISIT OUR GAME DEV & VR SHOWCASE!

Room N12

#DEVOPS/CONTAINER
Taming a beast - Bol.com's journey from deploying once a month to more then once a day
Mike Chernev (Bol.com)
Language: English - Level: For everyone

Deploying your application whenever you want is easy. Everyone does it nowadays. And that works great when you have a small group of people responsible for an application. But what if you have several teams working on the same application? What if you have almost 80 people committing more than 30 times a day? Can you face the challenge of deploying that application os often as you wish and succeed in keeping it stable? Bol.com did! In this talk we will walk the journey of bol.com from conservative four week release cycle to full autonomy. What are the challenges we faced, how we tackled them.

Room N13

#GAME DEV
Vitruvian Game: a new way to learn how technologies work
Paolo Moro (Busnet.it srl)
Samuele Chiocca (Business Research Srl)
Language: Italian - Level: Intermediate

General description of the project and how INTEL invited me to participate.
Show some videos and photos during the construction phase. Talk about the specific technologies: MSI Backpack VR with Unreal Engine Arduino and INTEL Tintyle Board Motor Automation PLC, Driver and connection with joystick Iron CNC 3D application Error, beta fase and problems solved. Talk about the upgrade we are implementing to participate in the next fair in May 3rd axis, it will became a gyroscope, API to catch data from the Engine.
#Kubernetes #OPCUA #IoT #Industry40

Room N14

#ARCHITECTURES
A journey in the API Economy
Riccardo Pulcini (Sopra Steria)
Language: Italian - Level: Intermediate

We present our excursus in collaboration with one of our main customers in the development of a new environment dedicated to the management and sales of API.
The main objective of this project is to enable the services exposed by the customer in his internal architecture to the growing world of the "start up" using the Axway API Gateway and the microservices architecture.
We will discuss the difficulties encountered and how the use of the main patterns related to microservices have helped us overcome them.

Room DS1

#INSPIRATIONAL
The fake problem with hiring juniors
Berta Devant (Novoda)
Language: English - Level: For everyone

There is a common misconception that junior developers are a burden and won't be delivering value for the first months or even years.
Yet, observing my own contributions, I realised how my insights were useful for my team from day one. Working with agile methodologies, using pair programming and code review, you can contribute to your team, deliver value and learn on the job. In this talk I will try to explain why hiring Juniors makes business sense for your company and/or team and how to properly get the most out of every team member no matter their level of experience.

12.30 13.10

Room N10

#AI/MACHINE LEARNING
Use Machine Learning in your code, without being a ML expert
Alfredo Morresi (Google)
Language: English - Level: Intermediate

Using Google Cloud AutoML to automatically train models on your custom data?
Yes, and we can go deeper, exploring how to add image classification, speech recognition, video labelling and other machine-learning powered tasks to your code, without a PhD on the matter, thanks to Google solutions.

Room N11

#SECURITY
Data Breaches: Barbarians in the Throne Room
Dave Lewis (Akamai Technologies)
Language: English - Level: Beginner

Often defenders worry about the intangible security problems. Defenders need to concentrate their efforts defending the enterprise by focusing on the fundamentals. Too often issues such as patching or system configuration failures lead to system compromise. These along with issues such as SQL injection are preventable problems. Defenders can best protect their digital assets by first understanding the sheer magnitude that a data breach can have on an enterprise. In this talk I review my findings after analyzing hundreds of data breach disclosures as it pertains to what went wrong.

Room N1

#BLOCKCHAIN
Upgrading the Bitcoin protocol
Simone Bronzini (Chainside)
Language: English - Level: Advanced

Due to its permissionless nature, which makes nodes coordination practically impossible, upgrading the Bitcoin protocol preserving backward compatibility can be very hard.
This often leads to the development of very complex solutions to very simple problems and, in some cases, limits the freedom to add new features to the Bitcoin protocol. In this talk we will analyze the complexities of such upgrades, basing our analysis on past approaches and how they evolved in time.

Room N3

#MOBILE
Xamarin in real life: our MVP approach
Antonino Cacace (NTT DATA Italia)
Daniele Leombruni (NTT DATA Italia)
Language: Italian - Level: Intermediate

Come realizzare mobile app cross-platform massimizzando il riuso del codice?
Vi raccontiamo pro e contro della piattaforma Xamarin riportando la nostra esperienza nei progetti di digital transformation, con uno sguardo attento sul futuro del mobile development.

Room N5

#FUNCTIONAL PROGRAMMING
Functional Java with Vavr
Iván López (Object Computing, Inc.)
Language: English - Level: Intermediate

Functional is the new buzzword of the last years. Everyone wants to be functional and immutable, everyone wants to use the more functional and pure programming language...
The structured programming and object oriented programming now belong to the past. In this talk you'll learn how to write your Java code in a more functional way using the Vavr library (formerly known as Javaslang).
Don't worry because I won't talk about monads, functors and all those buzzwords related to functional programming.
Everything will be practical examples that you can use in your daily work.

Room N12

#FRONT-END DEV
Node.js Native AddOns from zero to hero
Nicola Del Gobbo (Packly)
Language: English - Level: Intermediate

This talk is about creating Node.js interfaces for native libraries written in C or C++.
It starts with various situations in which you need to build native addons and the common problems in doing that. I'll discuss the reference provided by the new N-API (Node-API) that helps mantainers to support a wide variety of Node.js releases without needing recompilation or abstraction layers. With all these tools and knowledge I'll show you how to build some addons from scratch and how to convert existing addons using the new N-API.
The last part is related to future developments about addons.

Room N13

#GAME DEV
Game of Bots
Amie Dansby (ATAT Tech)
Language: English - Level: Intermediate

Structured dialog in games is often limiting for conversation, cognitive computing is changing the game. Integrating chatbots into your game or application can give interactive character dialog conversations. We will go over integrating Watson SDK into Unity projects. Using IBM Watson to integrate conversation AI, tone analyzer, and speech to text services to interact with the game for immersive character conversations throughout the story.
Create a dialog with the players, simulation the personality of the avatar, integrate speech to text.

Room N14

VISIT OUR GAME DEV & VR SHOWCASE!

Room DS1

#FRONT-END DEV
A thunk, a saga and an epic walk into a bar...
Artur-Iulian Daschevici (Birdie)
Language: English - Level: Intermediate

Today managing state in react apps is a bit all over the place. We have multiple ways of doing things but the flexibility is both good and overwhelming. What are the differences and similarities between the big players out there? Thunks vs Sagas vs Epics.

13.10-14.10 TAKE YOUR CODEMOTION LUNCH BOX

14.10 14.50

Room N10

#MICROSERVICES
Building and evolving microservices: lessons from the frontlines
Ilias Bartolini (ThoughtWorks)
Language: English - Level: Intermediate

In the last 6 years I've been involved in building, evolving and running in production IT systems based on the microservices architectural style. I've had the privilege to be in one of the early teams within ThoughtWorks adopting this architectural style. Along the way I took part as developer and tech lead in multiple projects, across various technological stack and industries, witnessing failures and successes.
This talk is a collection of tips and lessons learned from the frontlines.

Room N11

#DEVOPS/CONTAINER
Continuous Delivery with Containers: The Good, the Bad, and the Ugly
Daniel Bryant (Big Picture Tech)
Language: English - Level: Intermediate

Implementing a continuous delivery (CD) pipeline is not trivial, and the introduction of container technology to the development stack can introduce additional challenges and requirements. In this talk we will look at the high-level steps that are essential for creating an effective pipeline for creating and deploying containerized applications.
Topic covered include:
* The impact of containers on CD
* Adding metadata to container images
* Validating NFR changes imposed by executing Java applications within a container
* Lessons learned the hard way (in production).

Room N1

#INSPIRATIONAL
Digital Divide "Il mondo è nelle mani di chi ha il coraggio di sognare e di correre il rischio di vivere i propri sogni"
Luca Attias (Corte dei Conti)
Language: Italian - Level: For everyone

L'Italia da anni è in "emergenza digitale".
Occorre abbattere il digital divide, trasmettere cultura e managerialità digitale a scuola, università, sanità, mondo del lavoro e dare attuazione alle tante norme in tema di digitale.
Abbattere il digital divide vuol dire anche porre un argine alla corruzione ed al malaffare.
Citando Steve Jobs, occorre sognare, avere la follia di credere in un futuro veramente digitale.
Luca Attias da anni evidenzia tutto ciò e cerca di sensibilizzare le platee che lo ascoltano affinché reagiscano e si rendano parte attiva in quest'opera di divulgazione culturale.

Room N3

#GAME DEV
How we manage to get multi platform games with our custom engine
Ivan Zorzin (Llamasoft)
Jeff Minter (Llamasoft)
Language: English - Level: Intermediate

A discussion about how to get things done and some inside about our coding process and methods. Some little insights about our architecture.

Room N5

#MOBILE
Go reactive with Realm and Xamarin Forms
Andrea Ceroni (Elfo)
Language: Italian - Level: Intermediate

In this talk I would like to share my experience of using this new mobile database with great potential. We will see which are the major differences compared to SQLite and what makes Realm very fast so as to be called "in realtime". We develop a realtime multiplatform collaborative app starting from scratch, using the latest features introduced by Xamarin Forms to improve the responsiveness. Your viewmodels and bindings for sure will thank you! :-)

Room N12

#SOFTWARE ARCHITECTURES
Building a multi-tenant application using 45.000 databases
Henry Been (Henry Been Consultancy)
Language: English - Level: Advanced

To create an application that is truly designed for massive scale, scale-out at every level of the solution is needed.
While doing so at the services level, many developers are still using a single database to serve every request. In response to this, a new pattern, database-per-tenant, is emerging. In this pattern, all data is distributed over a large number of databases.
In this session Henry will explore this pattern in detail, covering its advantages and disadvantages and a number of common scenarios around such an architecture.

Room N13

#INSPIRATIONAL
Yes, your site can (and should) be accessible: Lessons learned building FT.com
Laura Carvajal (The Financial Times)
Language: English - Level: Intermediate

In 2016, the Financial Times launched a new version of its website to great success. It broke ground on key areas like performance, resilience, and usability. But one day the team that created the site realized they had largely forgotten to measure one thing: accessibility.
And you can't improve what you don't measure.
In this talk we will go over how the FT.com team introduced accessibility, and our journey from being generally oblivious about accessibility to making it a core part of our process across multiple divisions.

Room N14

#REACTIVE PROGRAMMING
Make RxJS and Node dance - how reactive programming can help in asynchronous non blocking environments
Enrico Piccinin (ThoughtWorks)
Language: English - Level: Beginner

Dealing with asynchronous non blocking processing has always been the norm in JavaScript and now is becoming popular in many other contexts.
Bad luck: benefits, e.g. efficient use of resources, come at cost of increased complexity.
Over time the community has found ways to address such complexity: we all started with 'callbacks', then came Promise, now async&await. Recently another kid has come to town, ReactiveX/RxJS. In this talk we can see how a real-world use case has found an effective solution leveraging Node efficiency with elegant functional style programming via RxJS and Observables.

Room DS1

#SECURITY
Are you using an opensource library? There's a good chance you are vulnerable...
Bruno Bossola (Meterian)
Language: English - Level: Beginner

Do you remember Equifax?
How did someone manage to steal the data of almost 200 million users?
Well, Equifax simply fell victim to a vulnerability on a framework, Struts, which older developers like me remember well. But you folks, who now use cooler things like Guava or Jackson, do you feel safe? Unfortunately, you are not.
After a clear introduction to the problem, with a couple of other illustrious examples, we will perform a couple of exploits together, live, and then take a look at possible prevention strategies.
This talk will open your eyes to a problem you did not know you had.

15.10 15.50

Room N10

#CLOUD/SERVERLESS
The serverless full stack
Glynn Bird (IBM)
Language: English - Level: Intermediate

Serverless frameworks are the logical end-game of the microservices movement - deploy single functions where a cloud provider runs them for you "as a service".
Find out how you can use serverless functions from Lambda and OpenWhisk to replace fixed infrastructure and allow you to build serverless full-stack applications.

Room N11

#DEVOPS/CONTAINER
Managing your Black Friday Logs
Antonio Bonuccelli (Elastic)
Language: English - Level: Intermediate

Monitoring an entire application is not a simple task, but with the right tools it is not a hard task either. However, events like Black Friday can push your application to the limit, and even cause crashes. As the system is stressed, it generates a lot more logs, which may crash the monitoring system as well. In this talk I will walk through the best practices when using the Elastic Stack to centralize and monitor your logs. I will also share some tricks to help you with the huge increase of traffic typical in Black Fridays.

Room N1

#AI/MACHINE LEARNING
Deep Learning for Machine Translation: a paradigm shift
Alberto Massidda (SourceSense)
Language: Italian - Level: Advanced

In beginning there was the "rule based" machine translation, like Babelfish, that didn't work at all. Then came the Statistical Machine translation, powering the like of Google Translate, and all was good. Nowadays, it's all about Deep Learning and the Neural Machine Translation is the state of the art, with unmatched translation fluency. Let's dive into the internals of a Neural Machine Translation system, explaining the principles and the advantages over the past.

Room N3

#GAME DEV
Commodore 64 Mon Amour(3): disassembling the camel. Reversiamo insieme un gioco del C64
Andrea Ferlito (Codemotion)
Massimiliano Agostinelli (Cy4gate)
Language: Italian - Level: Intermediate

In questa terza puntata dedicata al Commodore 64 ci dedichiamo al reverse enginering di AMC e cioe' 'Attack of the mutants camels', il classicone sparatutto del grande Jeff Minter pubblicato nel 1983. Smantelleremo insieme il cammello pezzo per pezzo utilizzando le tecniche proprie della pir@teri@ di un tempo (ma usando strumenti moderni), raccontando storie, aneddoti e chicche del codice, rigorosamente assembly del glorioso 6510.

Room N5

#FRONT-END DEV
Sweet Web Animations API
Rodolfo Dias (Outfittery)
Language: English - Level: Intermediate

We'll figure out how awesome is the web platform and how fast it's evolving.
Back in the days, we used flash to make powerful animations, then the platform evolved and we had the power in the hands to make animations using JS libraries to make it a bit easier. Now you can simply do it using this sweet dream called Web animations API, it'll provide you a bunch of interfaces and power to create lovely animations in applications.
Well try it and feel the sweet taste ;)

Room N12

#DESIGN/UX
More than colors and white spaces – designing enterprise applications
Tina Rauschenbach (SAP SE)
Janina Schulyk (SAP SE)
Language: English - Level: For everyone

Designing good applications is complex, involves analytical and creative thinking, as well as a lot of tedious, but necessary work. Defining a design language that cares about end users and empowers designers to create appealing and intuitive apps – while covering business needs and ensuring consistency – is a major challenge. We will share our insights and best practices based on our own journey.

Room N13

#MOBILE
Imagine your Cell Phone is Stolen: What happens to the data stored in your apps?
Christiane Goebels (SAP SE)
Language: English - Level: Intermediate

Oh my god, your cell phone is stolen!
And along with it, the brand new (hybrid) mobile application you have developed, storing all the nice sensitive data on the device!
But you can relax - you have taken all imaginable precautions to secure the application, and have made it impossible for the thief to get through to your data. Or have you?
This talk will shed some light about possible exploit strategies for hybrid (and native) applications on Android and iOS, as well as the corresponding methods to prevent these exploits.

Room N14

#FUNCTIONAL PROGRAMMING
Monads Explained for OOP Developers
Mikhail Shilkov (Astrata Europe)
Language: English - Level: Beginner

Are you curious about functional programming concepts, but daunted by its weird vocabulary? Have you heard of Monads, but struggled to understand what they are?
Should you care at all?
In this session I will explain Monads using Java and C# classes. I'll start with Why part, and then will give enough of clear and concise examples that you will be able to bring home and start using in your functional journey.
Functional programming is not complicated, it's just unfamiliar. Let's bring some clarity today.

Room DS1

#VR/AR
Augmenting the reality of education for the 21st century
Richard Lewington (University of Cambridge - Plain Concepts)
Language: English - Level: For everyone

In less than 50 years we have seen massive changes in the classroom.
From chalkboards to videotapes, the introduction to computers to interactive whiteboards, and now the implementation of Augmented Reality. But how much learning value can AR offer students beyond the "WOW factor"?
Are we just rehashing old teaching methodologies and redressing them up with the latest technology? Or should we be exploiting AR's potential as a tool rather than just another medium? Richard Lewington explores these questions and what we should be doing about it.

15.50-16.20 NETWORKING COFFEE

16.20 17.00

Room N10

#SOFTWARE ARCHITECTURES
The Art of Technical Decision Making
Duana Stanley (Freelance)
Language: English - Level: For everyone

Making decisions by yourself is hard, let alone with a team. As developers, making good technical decisions in teams is key to our jobs yet we don't explicitly learn how to do that.
As someone who has found technical argumentation difficult, I have been thinking about this topic for years: argumentation in teams should not be about winning and losing.
I will introduce a framework teams can use to evaluate options and find consensus when making big technical decisions, with an example.

Room N11

#BLOCKCHAIN
Byzantine generals! How the blockchain solves the distributed consensus problem
Federico Squartini (Spidchain)
Language: English - Level: For everyone

The major contribution of the Blockchain technology, is providing a solution to the problem of consensus in distributed systems.
But not every distributed consensus platform is a blockchain! I will introduce the problem of consensus, its various forms, the concept of proof of work and alternative mechanisms like proof of stake. There will be also a live game where participants will play the miners and have fun validating transactions!

Room N1

#LANGUAGES
Coding Gym: divertirsi e migliorarsi a colpi di algoritmi
Marco Arena (Ferrari)
Language: Italian - Level: Beginner

Coding Gym è un formato di incontri tecnici basato sulla risoluzione di coding challenges che ho ideato per il miglioramento continuo e che dal 2016 implemento mensilmente al LUG di Modena. Dopo un breve racconto dei suoi punti chiave, mostrerò alcuni esempi di esercizi che risolveremo assieme.
Il mio obiettivo è trasmettervi un mindset che vi permetta di massimizzare le opportunità di crescita celate dietro un qualsiasi esercizio.
Anche un banale "calcola la somma di una sequenza di numeri" vi darà nuovi spunti e idee per migliorare.

Room N3

#REACTIVE PROGRAMMING
Rx.NET, from the inside-out
Stas Rivkin (Codevalue)
Language: English - Level: Intermediate

Writing a truly non-blocking, maintainable code shouldn't be a giant headache. As developers we strive to write features bundled up into a single, readable and testable block of code and today's technologies greatly help us.
From .NET events to Task Parallel Library, we can craft complex features. But, unfortunately, having that many different technologies, we lack the possibility of composing (easily) between them. In this session, you will learn about the core fundamentals which construct the Rx API and how it provides a single, uniform language that abstracts away all sources of events.

Room N5

#GAME DEV
"That doesn't seem to work." - A puzzle design cheat sheet for point-and-click adventure game designers
Christopher Sacchi (Leafdog Games)
Language: English - Level: For everyone

Some dos and don'ts for point-and-click adventure game designers.
A quick tour of the types of puzzles found in some of the past and present point-and-click adventure games and how they merge with gameplay and storytelling. Beyond nostalgia, and with a glance at new technologies, this talk aims to suggest a way to avoid some of the design mistakes of the past and generate new ones, so to foster new solutions.

Room N12

#INSPIRATIONAL
Anxiety Driven Development
Nicole Bartolini (ideato srl)
Language: Italian - Level: For everyone

Experience anxiety while working isn't a rare condition. The lump in your throat, stiff neck, weak knees, sweaty hands... what to do?
There's an escape from this paralyzing sentiment? In this talk we'll know the difference between stress and anxiety and how to deal with anxiety at work (and in life too).
Tips to control breathing and some other little magic tricks to empower ourselves and overcome anxiety. As a plus, I'll show you how a person with anxiety can be a speaker at conferences and survive!

Room N13

#VR/AR
WebXR: Introducing Mixed Reality and the Immersive Web
Peter O'Shaughnessy (Samsung)
Language: English - Level: Intermediate

"WebXR" is the API formerly known as WebVR, upgraded to embrace the web's potential not just for Virtual Reality, but for immersive Mixed Reality experiences. We can start exploring the possibilities now, using libraries like Mozilla's WebXR Polyfill and Google's three.ar.js, plus special development browsers that incorporate ARCore (Android) or ARKit (iOS).
This talk will share how you can begin to blend the real world and the digital world as a Mixed Reality web developer - and a glimpse into the exciting future of the Immersive Web.

Room N14

#LANGUAGES
What Haskell taught us when we were not looking!
Eric Torreborre (Zalando)
Language: English - Level: Intermediate

Haskell, the pure and lazy functional programming language, has now been around for more than 25 years. It had a profound influence on many other programming languages on the JVM: Java, Clojure and Scala.
In this talk you will discover which Haskell constructs have made it to the JVM ecosystem and change the way you program today.
You will also get a glimpse of the features which are yet to be transferred for our greatest benefit.
Warning: after this talk you might be tempted to try the real thing!

Room DS1

Finish your *Codemotion's* GAME and get your Special Prize!

CLOSING KEYNOTE & LOTTERY

17.20-18.00 **ROOM N10 | ON STREAMING N11:** There is no such thing as luck **by Matteo Collina**

18.00-18.20 **ROOM N10 | ON STREAMING N11: CLOSING BY CODEMOTION & LOTTERY**

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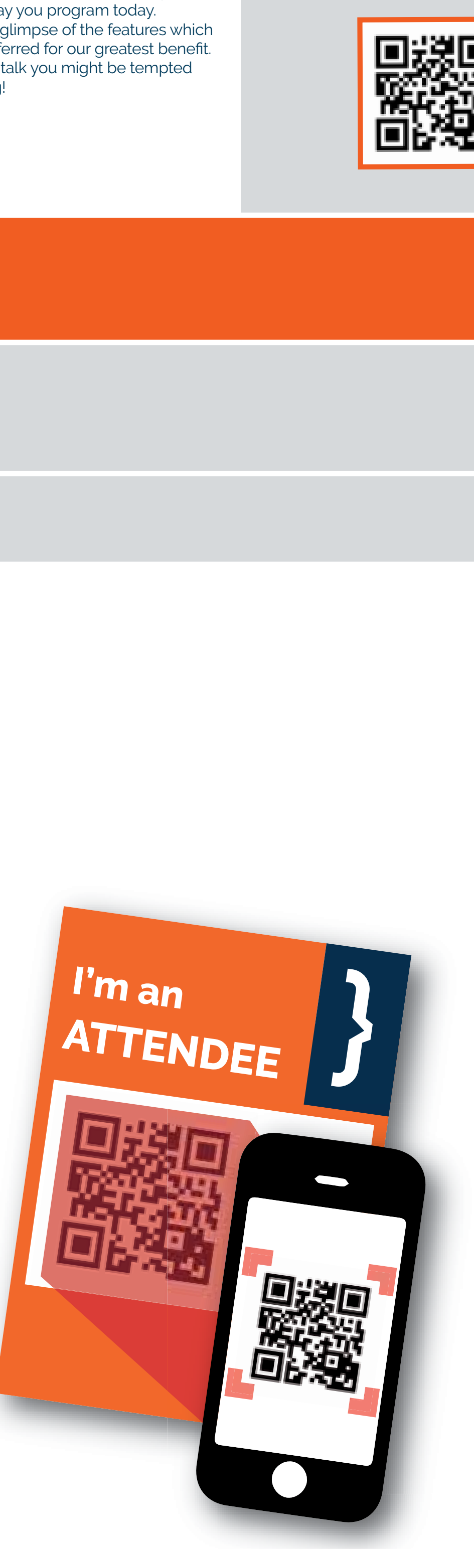

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