Adrien Ghosn

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EDUCATION

Ecole Polytechnique Federale de Lausanne (EPFL), Lausanne, Switzerland

PhD in Computer Science, DCSL — Sep 2016 – Present

Master Degree in Computer Science Engineering — Sep 2013 – Apr 2016
- Specialisation: Foundations of Software, advised by Prof. M Odersky
- Average: 5.75 / 6.00

Bachelor Degree in Computer Science Engineering — Sep 2010 – Jul 2013

Carnegie Mellon University (CMU), Pittsburgh, Pennsylvania, USA

Exchange Year in Bachelor Degree in Computer Science — Aug 2012 – Jul 2013
- Dean's list, School of Computer Science for QPA > 3.75 / 4.00

SKILLS

Programming Languages

Java, Scala, C, C++, Shell Scripting, Python, asm, Haskell, Perl, JavaScript (& HTML/CSS), SQL

Tools & Other skills

Git, SVN, Eclipse, VIM, SBT, PlayFramework Java/Scala, TOMCAT, Relational Databases, OpenStreet Map, Google/Twitter's APIs, Hadoop, Spark, Map/Reduce, TCP/IP Networking, IT Security, Cryptography, Model Based System Design, Theoretical Computer Science, Concurrent & Distributed algorithms.

RESEARCH EXPERIENCE

Northeastern University, Boston, Master Thesis Student — Sep 2015 – Mar 2016
- Project: Efficient runtime deoptimization for R
- Supervisors: Prof Jan Vitek and Prof Viktor Kuncak
- Research areas: On-stack replacement, assumption-based compiler optimizations, R, LLVM, JIT compilers

ABB Corporate Research, Graduate Research Intern — Feb 2015 – Aug 2015
- Project: Aperiodic Support in FASA
- Supervisors: Dr. Manuel Oriol and Dr. Aurelien Monot
- Research areas: Fixed-priority servers, data-driven events, real-time control applications, Kernel, dynamic linking/loading, π-calculus

EPFL Programming Methods Laboratory (LAMP), Graduate — Sep 2014 – Feb 2015
- Project: Obey, Code health for Scalameta
- Supervisors: Prof. M. Odersky and Eugene Burmako
- Description: Auto-correction and formatting at compile-time of Scala source code, according to user-defined rules. The project enables to automatically correct the source code to comply with project-defined formats or adapt to new library interfaces.

EPFL Programming Methods Laboratory (LAMP), Graduate — Jan 2014 – Jul 2014
- Project: AST Persistence for Scalameta
- Supervisors: Prof. M. Odersky and Eugene Burmako
- Description: Efficiently storing a compressed version of Scala Abstract Syntax Trees (AST's). This new format resolves compiler version incompatibilities for Scala libraries, while containing more information than the .jar compiled byte-code.

PROJECTS

Operating Systems Implementation & Design, 15-410 CMU — Jan 2013 – Jul 2013
- Description: Implementation of a x86 Unix like Kernel in C and ASM. The project required to design and implement the thread library, the virtual memory, the drivers for the display, keyboard and clock, the system calls and an efficient scheduler.

Tweet Aggregator, EPFL — Jan 2014 – Jul 2014
- Description: Big Data web application that gathers and displays real-time tweets according to user-defined keywords. The application gives a fine-grained filtering of tweets according to zoom-level and selected geographical areas. The project evolved into crossstream.ch.

Compiler & Advanced Compiler, EPFL — Sep 2013 – Jul 2014
- Description: Compilers for Java-like and Lisp-like languages. Implementation of optimizations such as DCE-CSE-Constant Folding-Closures-Hoisting and a garbage collector.

LANGUAGES

French (Native language), English (Fluent), Italian (Notions)