

# ULRICH GUILLAUME

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NATIONALITY: SWISS  
BORN: FEBRUARY 26<sup>TH</sup>, 1990

## EDUCATIONAL BACKGROUND

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- 2011 - 2013 : **Master in Computer Science**  
Ecole Polytechnique Fédérale de Lausanne (EPFL)
- 2008 - 2011 : **Bachelor in Computer Science**  
Ecole Polytechnique Fédérale de Lausanne (EPFL)
- 2004 - 2008 : **Swiss Federal Maturity – Collège Voltaire, Genève**  
Advanced mathematics, specific option: ancient Greek, complementary: physics

## EXPERIENCE

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- Jan – July 2014 : **EPFL – Ecological Engineering Laboratory – Service civil**  
Development of an autonomous catamaran boat to take different kind of measurements of lake Geneva.
- Development, test and improvement of the reliability of an autonomous boat recording physical and chemical measurements of Geneva Lake.
  - Development of the boat control application in C++ and LabView
  - Development and maintenance of a data visualization web portal, using Scala and the Play! framework
- Sept – Dec 2013 : **EPFL - Energy Center – Service civil**  
Development of a web portal to manage and visualize energy production and distribution in canton de Vaud, Switzerland.
- Development of a server-client application using J2EE/Tomcat and Spring Hibernate
- Feb - August 2013 : **SAP Research LAB, Sophia Antipolis, France – Internship/Master thesis**  
Creation of an application aiming at improving the transparency and control of application developers and users.
- Design and development of an application to scan a given Java library (jar, war, pom, ivy, osgi) and build its dependency tree, using Scala and Java
  - Design and development of a constraint language and constraint solving system, using Scala and Prolog
  - Design and development of an application retrieving and storing the known vulnerabilities in a database, using Scala and SAP Hana SQL
  - Design and development of an application applying user defined and automatically defined constraints on a given Java application's dependency tree and displaying the results, using Scala, J2EE/Tomcat, Html and Javascript.
- July - August 2009 : **Eurospider (LEXspider), Zürich, Switzerland - Internship**  
Development of a web application for the iPhone. The goal of the application was to facilitate the browsing between the different articles of the main swiss laws.
- Design and development of an application creating an iPhone optimized web application, from the main swiss laws, using Java, Html, Javascript and Php

## PROJECT EXPERIENCE

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- Spring 2013 :*           **Master thesis: Dependency Chaos - Know your libraries**  
Creation of an application aiming at improving the transparency and control of application developers and users.
- Scan of a given Java application's dependencies to build the dependency tree
  - Constraint language definition in order to apply constraints on the tree
  - Application of constraints written in that language on the tree
  - Automated creation constraint defined in the defined constraint language
  - Display of the result as an HTML report
- Fall 2012 :*           **Master semester project: SHotDraw**  
Translation of JHotDraw into Scala and replacement of the observer patterns using the Scala reactive library.
- Fall 10 - Spring 11 :*   **Bachelor project: PocketCampus**  
Development of a campus helper application on android.

## ASSISTANTSHIPS

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- Fall 2012 :*           **EPFL – Software engineering – Computer Science**  
• Java and Android teaching assistant
- 2011 – 2012           **EPFL – Computer-aided engineering – Environmental and Civil engineering**  
• Java teaching assistant
- Spring 2010:*       **EPFL – Information technology project – Computer and communication sciences**  
• Java Teaching Assistant

## COMPUTER SCIENCE SKILLS

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- System :*           OS: Linux, Windows, Unix, Mac OS  
DBMS: SAP HANA, MySQL, Oracle
- Programming :*   Main: **Java, Scala**, Java for Android, Prolog  
Experienced: C, C++, Shell, Objective-C, Perl, Python
- Web Publishing :* J2EE/Tomcat, Play framework, SQL, XML, HTML, Javascript , CSS, PHP
- IDE :*               Eclipse, NetBeans, Code::Blocks, Geany

## LANGUAGES

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- French :*           Mother tongue
- English :*          Full professional proficiency (C1)
- German :*          Limited working proficiency
- Bengali :*          Elementary proficiency

## SOFT SKILLS

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- Flexibility, open-mindedness and ability to adapt quickly to new ideas and situations.
- High interest in acquiring new knowledge, solving new problems and sharing my knowledge with others
- Autonomous, highly motivated along with a positive attitude and working well under pressure

## OTHER INTERESTS

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- Sports :*           Ice Hockey, Triathlon and many others
- Music :*           9 years of piano at CPM Genève