# **Christian Zommerfelds**



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#### **STRENGTHS**

- Full-stack software engineering following "agile" best practices
- Writing algorithms in C/C++, Python, Java, JavaScript and Scala
- Data analysis: worked on projects using Apache Spark, MATLAB, SQL, Scikit-learn, machine learning
- Architecting scalable distributed systems on the cloud (AWS Certified Solutions Architect Associate)
- Strong communication, teamwork and leadership skills

Tech **CORE EXPERIENCE** 

## D2L, Kitchener, Canada — Software Developer

Jan 2017 - today

Launched and maintained crucial parts of D2L's new enterprise market e-learning solution (back-end and UX). Supported our domain driven teams by building highly scalable infrastructure, enabling asynchronous communication between microservices on the cloud. Contributed to challenging architectural and design decisions. Mentored multiple interns.

Node.js DevOps, AWS Microservices Serverless arch. Terraform C#, SQL Server

## Swiss Federal Institute of Technology in Lausanne (EPFL) — MSc Thesis and Post-Thesis Research Internship

Feb 2016 - Oct 2016

Designed and developed a big data pipeline to predict technology trends by analyzing a corpus of US patents. Defined a framework for extracting a density time-series from the patenting space and implemented machine learning techniques to forecast changes in the space. The project is now being continued by full-time researchers at EPFL.

Spark, MLlib k-NN search Elasticsearch Google Cloud

## Gallop Labs, Toronto, Canada — Software Engineer

Jan 2014 - Dec 2014 (Gallop Labs was incubated at BNOTIONS and acquired by Big Viking Games)

Developed core systems on the Gallop platform including back-end, web UI and data pipeline. Enabled the implementation of modern AI data-driven solutions based on big data and ML models by bridging a gap between the development team and the data science team.

Django JavaScript **AngularJS** RabbitMQ NoSQL Spark

#### **EDUCATION**

# EPFL, Lausanne, Switzerland — Master's in Computer Science

Sep 2010 - Oct 2016

MSc in Computer Science with minor in Management of Technology and Entrepreneurship

Exchange Program at University of Waterloo, Canada (Sep 2012 - Apr 2013)

BSc in Computer Science (Sep 2010 - Apr 2013)

ADDITIONAL EXPERIENCE Tech

**EPFL - ObViz.com - Semester Project -** Jan 2015 - Jul 2015

Clustering Stanford NLP

Implemented Named Entity Recognition and explored its applications and accuracy for opinion extraction.

SQL

**EPFL - DevSearch - Project Leader -** Jan 2015 - Jul 2015

Led a team of 10 students to develop a semantic-aware source code search engine. Defined the architecture of the distributed search back-end and front-end. Project is being continued by other students.

Akka MongoDB Play

**EPFL - PolyProg (algorithms association) - President - Oct 2013 - Oct 2016** 

Coordinated programming events (e.g. HC<sup>2</sup> with over 200 participants) and numerous seminars on campus. Managed sponsor relations with large tech companies.

Algorithms Data structures AWS

**EPFL - OOP Java class - Teaching Assistant (EPFL) - Feb** 2012 - Jul 2012

Facilitated an object-oriented programming class for the computer science faculty.

Java Graphical user interfaces

RUAG Aviation, Wilderswil, Switzerland — Software Engineering Intern

Feb 2010 - Dec 2010

Analyzed the performance of the embedded system of an aircraft self-protection test device. Successfully improved the system's loading times by up to 10x.

C++, Python Embedded systems

### **LANGUAGES**

Portuguese native language English full professional proficiency (C2)

German native language French professional working proficiency (C1)

## **ACTIVITIES & INTERESTS**

Projects: christian.zommerfelds.com, ray-tracer, game development (Android, PC, Nintendo DS, TI calculator)

Algorithms: participation in programming competitions such as SWERC 2013 (ACM ICPC regional) in València (Spain), Swiss Olympiads in Informatics (Bronze and Silver medals), President of EPFL algorithm student club

Hobbies: rock climbing, family craft brewery, electronic music production, open source development, chess