

## SHORT PROFILE

Originally, I studied Business Information Technology at ZHAW and then worked as a Software Engineer and IT Consultant. My passion for machine learning then motivated me to take a leap of faith and pursue a further Bachelor in Computer Science at ETHZ. During my time at ETHZ I had the chance to attend several master-level machine learning courses (see list below). Also, my thesis allowed me to intensively study and apply recommender systems for half a year. I recently graduated and so, here I am now, ready and eager to start my career in software engineering and machine learning.

## EDUCATION

### B.Sc. Computer Science – ETH Zürich [5.46/6.0]

09/2014 – 09/2019

**Thesis:** Mixed-Curvature Space Representations for Recommender Systems (5.75)

**Specialization:** Elective courses in machine learning:

- Deep Learning\*
- Probabilistic Artificial Intelligence\*
- Data Mining\*
- Learning and Intelligent Systems
- Machine Learning\*
- Building a Robot Judge
- Visual Computing

\* = Master-level courses

### B.A.Sc. Business Administration – ZHAW SML [5.65/6.0]

09/2010 – 09/2013

**Thesis:** Battery-Efficient Transportation Mode Detection on Mobile Devices (6.0)

**Specialization:** Business Information Technology

**Honor Award:** Best graduation in Business Information Technology

## WORK EXPERIENCE

### Associate IT Consultant – Orbium

10/2013 – 05/2014

Zürich & Berlin

Parametrization of the Avaloq Banking Suite (E-Banking, Output Management) for three major banks in Germany. Requirements engineering in close collaboration with the clients.

**Technologies:** *Avaloq (Certified Professional 2013 – 2015), PL/SQL, XML, VBA*

### Research Assistant – ZHAW

05/2013 – 07/2013

Winterthur

Continuation of bachelor thesis: Implementation of a system for transportation mode detection on mobile devices for SBB and Swisscom. Conduction of trainings on the Spring framework for the research assistants of the department.

**Technologies:** *Java (Spring, WEKA Machine Learning Library), Android, MySQL*

### Web Developer – ZHAW & Press Play

09/2012 – 06/2013

Winterthur

Integration Seminar: Implementation of the entire website for the event and live voting of the Swiss Music Awards of 2013 in a team of four students. Desktop and mobile client via responsive web design. Conduction of web development trainings for the upcoming students of the following year.

**Technologies:** *PHP (Drupal), JS (jQuery), CSS (LESS), HTML*

### Junior Software Engineer – Namics

06/2012 – 09/2012

St. Gallen

Internship in software engineering: Integration of a rule-engine into the Swissport Lounge Check-in system. Training of client for the recording of rules into the rule-engine.

**Technologies:** *Java (Spring, Hibernate, OpenRules), MySQL, HTML, JS (jQuery)*

### Specialist Consumer Finance – Credit Suisse

05/2008 – 08/2010

Horgen

Customer care for consumer credits in German, French, Italian and English. Opportunity to participate in the testing of new software releases.

## SKILLS

**Machine Learning, Data Science,**  
**Deep Learning, Recommender Systems,**  
**Natural Language Processing, Data Mining,**  
**Computer Vision & Graphics, IT Consulting,**  
**Software Architecture & Development**

## IT SKILLS IN DETAIL

### Python

Pytorch, Tensorflow, Keras, Sklearn, Spacy, Numpy, Pandas, Matplotlib

### C++, C, x86 Assembly, CUDA, OpenCL

OpenCV, Eigen, CUDA & OpenCL Kernels, MPI, OpenMP, OS Kernel Modules, IDA, GDB,

### Java

Spring, Hibernate, Android, Maven

### Matlab

### MySQL, PostgreSQL, PL/SQL

### Amazon Web Services

### Linux, Unix, Windows

### PHP, HTML, CSS & JavaScript

Wordpress, Drupal, NodeJS, jQuery, Angular, WebGL, Less, Sass

### Haskell

## PERSONAL PROJECTS

**Open Source Contribution:** of ~~κ~~-stereographic model to the geometric optimization library geoopt (Pytorch).

**Machine Learning Blog:** [andbloch.github.io](http://andbloch.github.io)

**Continuous Learning:** Regularly updating machine learning skills through reading of research papers and attending of meetups and online courses.

## LANGUAGES

English	Full Professional Proficiency
German	Native Proficiency (Bilingual)
Italian	Native Proficiency (Bilingual)
French	Full Professional Proficiency
Portuguese	Professional Proficiency

## INTERESTS

Kitesurfing, Swimming, Artificial Intelligence, Technology, Mathematics, Socializing