

Andreas Bloch

Machine Learning Specialist

Computer Scientist **ETH** Zürich

«My passion is to solve challenging problems through the power of cutting-edge machine learning technologies.»



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SHORT PROFILE

Originally, I studied Business Information Technology 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 with focus on machine learning. I recently graduated and so, here I am now, ready and eager to take up my first big job opportunity in the field of machine learning.

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, PL/SQL, XML

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 Spring framework for the research assistants of the department.

Technologies: Java (Spring Framework, WEKA Machine Learning Library), Android (Spring Mobile), 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), JavaScript (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 Framework, Hibernate, OpenRules), MySQL, HTML, JavaScript (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.

EDUCATION

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

09/2014 – 09/2019

Thesis: Mixed-Curvature Space Representations for Recommender Systems

Specialization: Elective courses in machine learning:

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

Specialization: Business Information Technology

Honor Award: Best graduation in Business Information Technology

SKILLS

Data Science Machine Learning Deep Learning

Natural Language Processing Data Mining

Recommender Systems Computer Vision

IT Consulting Software Development

IT SKILLS IN DETAIL

Python

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

Java

Spring, Hibernate, Android, Maven

C++, C, x86 Assembly

Eigen, OpenCV, OpenMP, MPI, Custom Kernel Modules, IDA, GDB

Matlab

MySQL, PostgreSQL, PL/SQL

Avaloq (Certified Professional 2013-2015)

Amazon Web Services

Linux, Unix, Windows

PHP, HTML, CSS & JavaScript

Wordpress, Drupal, NodeJS, jQuery, Angular, WebGL

Haskell

PERSONAL PROJECTS

- **Open Source Contribution** of κ -stereographic model to the geometric optimization library geoopt.
- **Machine Learning Blog:** 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 Barbecuing

Artificial Intelligence Technology

Mathematics Socializing