# Andreas Bloch

Machine Learning Enthusiast

Computer Scientist ETH zürich

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



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0 Zürich, Switzerland

> 17 May, 1988

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> andbloch.github.io (

#### WORK EXPERIENCE

## **Associate IT Consultant**

Orbium

10/2013 - 05/2014

Zürich & Berlin

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

Technologies: Avalog, PL/SQL, XML

#### **Research Assistant**

**ZHAW** 

05/2013 - 07/2013

Winterthur

Continuation of bachelor thesis: Implementation of a system for transportation mode detection (Android app and server app) for SBB and Swisscom. Conduction of software engineering trainings.

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

## Web Developer

ZHAW & Press Play

12/2012 - 02/2013

Winterthur

Implementation of the website for the event and live voting of the Swiss Music Awards of 2013. Desktop and mobile client via responsive design.

Technologies: PHP (Drupal), JavaScript (¡Query), 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.

Technologies: Java (Spring Framework, Hibernate, OpenRules), MySQL, HTML, JavaScript (jQuery)

#### **Specialist Consumer Finance**

Credit Suisse (Bank-now)

05/2008 - 08/2010

Horaen

Customer care for consumer credits in German, French, Italian and English.

### **Private Equity Salesman**

Conseillers Suisse

11/2007 - 02/2008

Zürich

Cold calling for private equity investments in biodiesel companies.

## Call Agent Outbound

**RBC Solutions** 

01/2007 - 05/2007

Feldmeilen

Cold calling for Schuler wines, Landbote newspapers, AIG insurances.

#### **SKILLS**

Machine Learning

Deep Learning

Data Mining Recommender Systems

Natural Language Processing

Software Development

Consulting

#### CERTIFICATES

Avalog Certified Professional (2013-2015)

### HONOR AWARDS

ZHAW School of Management and Law Dean's list for best graduation in Business Information Technology (09/2013)

#### LANGUAGES

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

## INTERESTS

Kitesurfing

Swimming

Barbecue

Artificial Intelligence

Technology

Mathematics

Socializing

## PUBLICATIONS

### **Battery-Efficient Transportation Mode Detection on Mobile Devices**

Andreas Bloch, Robert Erdin, Sonja Meyer, Thomas Keller, Alexandre de Spindler, June 2015, 16th IEEE International Conference on Mobile Data Management.

### **EDUCATION**

# B.Sc. Computer Science (Grade: 5.46/6.0)

ETH Zürich

09/2014 - 09/2019

Thesis: Mixed-Curvature Space Representations for Recommender Systems

Specialization: Elective courses in machine learning, including

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

#### Visual Computing

# B.A.Sc. Business Administration (Grade: 5.65/6.0)

ZHAW School of Management and Law

09/2010 - 09/2013

Thesis: Battery-Efficient Transportation Mode Detection on Mobile Devices

Specialization: Business Information Technology

## **High School Diploma**

High School of Küsnacht

08/2002 - 08/2006

Linguistic profile (Italian)



**ETH** zürich



## **PERSONAL PROJECTS**

• Open Source Contribution:

Contribution of  $\kappa$ -stereographic model to the geometric optimization library geoopt.

Machine Learning Blog:

Publication of several blogposts about topics in machine learning on andbloch.github.io.

Continuous Learning:

Regularly updating machine learning skills through research papers and online courses.

## IT SKILLS IN DETAIL

#### **Python**

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

#### Java

Spring, Hibernate, Android, Maven

## C++, C, x86 Assembly

Eigen, OpenCV, OS Kernel Modules, IDA, GDB

#### Matlab

MySQL, PostgreSQL, PL/SQL

**Amazon Web Services** 

Linux, Unix

### PHP, HTML, CSS & JavaScript

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

### Haskell