# Robin M. Schmidt

## RESEARCH AND WORK EXPERIENCE

## Max Planck Institute for Intelligent Systems & University of Tübingen

Research Internship in the Probabilistic Numerics Group of Prof. Dr. Philipp Hennig

Oct 2019 - Mar 2020 [Python, Shell, MFX]

- o Benchmarked & Compared 102 state-of-the-art Deep Learning Optimizer choices and configurations
- $\circ$  Solved the problem of missing reference points for new optimization algorithms
- Enabled DeepOBS as competitive benchmarking suite by creating new optimization baselines and rankings
- o Took the initiative and advanced development of DeepOBS by fixing very impactful bugs and developing features
- o Grade for Credit (german): 1.0, approximately equivalent to an "A" grade (UK)

# IBM Germany Research & Development

Aug 2019 – Oct 2019

Extreme Blue Internship supervised by Martin Oberhofer and Dr. Manfred Oevers

[Python, REST, Gremlin]

- o Researched possibilities for Master Data Management (MDM) with Internet of Things (IoT) use cases
- Managed the team of interns to succeed regarding our goals, deadlines, reviews and presentations
- o Developed more effective instance level product master data representations through a RESTful JSON API
- $\circ~$  Developed a graph-based visualisation based on React. js for a prototype in the healthcare sector
- o Took the initiative to work closely with offering management in the USA to deploy the obtained improvements
- o Presented the results at a conference for worldwide stakeholders and IBM-leaders in Cluj-Napoca, Romania

#### ENisco GmbH & Co. KG

Jun 2018 - Sep 2018

Bachelor Thesis supervised by Prof. Dr. Antonius van Hoof

[Java, SQL, MTEX]

- Conceptualised and developed a highly cost-efficient single product tracking system for limited factories
- Custom-tailored and deployed the system successfully for a customer with limited resources in Tennessee, USA
- o Took the initiative to solve arising problems on premise in the USA regarding the data collection
- o Grade for Credit (german): 1.4, approximately equivalent to an "A" grade (UK)

## Cooperative State University Baden-Württemberg Stuttgart

Oct 2017 – Jun 2018

Research Internship supervised by Prof. Dr.-Ing. Olaf Herden

[Shell, MEX]

- $\circ$  Compared state-of-the-art NewSQL databases on the categories of the Business Readiness Rating  $\mathcal{C}$
- $\circ~$  Solved the problem of missing reference points for the appropriate NewSQL database selection
- Grade for Credit (german): 1.5, approximately equivalent to an "A" grade (UK)

#### Eisenmann SE: Research & Development

Oct 2015 – Oct 2018

Cooperative Studies: Computer Science

[Java, JS, HTML, CSS, MT-X]

- Research & Development projects in the field of Manufacturing Execution Systems
- ∘ Approximately equivalent to 5 internships with a duration of 3 − 4 months each
- o Quantified and implemented more effective Key Performance Indicators for better performance insights
- Significantly improved the data analysis possibilities for customers by developing state-of-the-art dashboards
- Published several whitepapers on these topics under a non-disclosure agreement

## **EDUCATION**

University of Tübingen | M.Sc. - Computer Science (Oct 2018 - Present) Tübingen, Germany

DHBW Stuttgart | B.Sc. - Computer Science (Oct 2015 - Oct 2018) Horb, Germany

## SKILLS

Languages: German (native), English (business fluent), Latin (small latinum certificate), Japanese (beginner)

Programming: Python, Java, C#, Prolog, R, SQL, Gremlin, HTML5, CSS3, JavaScript

Frameworks & Tools: Flask, React, TensorFlow, NumPy, Pandas, Version Control, Adobe Suite, Linux, Docker, Kubernetes, Microsoft Office, LaTeX

Databases: MySQL, Oracle, JanusGraph, MongoDB, VoltDB, NuoDB, CockroachDB

Document version: Feb 2020 | More info at robinschmidt.netlify.com

# SELECTED PROJECTS & CONTRIBUTIONS

<u>DeepOBS</u>: Optimization Benchmarking Suite – Contributed Baselines, Scripts and improved Software Quality <u>App2Night</u>: Location based mobile App to create, comment and rate user generated events to find the best event <u>SiteScrawler</u>: Webapp to provide users with relevant news articles based on customisable topics of interest

## ARXIV SUBMISSIONS

[1] Robin M. Schmidt. Recurrent Neural Networks (RNNs): A gentle Introduction and Overview. 2019. arXiv: 1912.05911 [cs.LG].