

Jan Hohenheim

STUDENT OF BIOMEDICAL SCIENCE · NEUROINFORMATICS · APPLIED STATISTICS
SENIOR SOFTWARE ENGINEER · TEAM LEAD · AUTHOR · SCRUM MASTER

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Experience

Messerli Informatik AG Spreitenbach, Switzerland

SOFTWARE ENGINEER, SCRUM MASTER

September 2014-August 2019

- Heavily involved in the shaping of the company's technical strategy
- Introduced teams to Scrum and worked with them to transform their project management process
- Prepared and conducted presentations for company internal training in topics such as usage of modern C++ and Clean Code along with accompanying articles for the company's internal wiki
- Refactored decades old code to be testable while cleaning up architecture
- · Wrote libraries used by new projects with focus on testability, immutability and architecture
- Conducted apprenticeship days
- Setup company-wide continuous integration process

Myelin Research Group

Aarau, Switzerland

CO-FOUNDER, PRODUCT OWNER, RESEARCHER & SOFTWARE ENGINEER

September 2018-September 2019

- Developed new training strategies with the goal of achieving general intelligence
- Implemented 3rd generation neural networks
- · Researched new ways of evolving neural network topology through genetics, especially through evolutionary developmental biology
- Combined libraries to a general 2D simulation engine with a clean architecture
- Helped writing a mocking library

Packt Publishing LTD Remote

AUTHOR OF "THE RUST STANDARD LIBRARY COOKBOOK"

September 2017-April 2018

- Worked out a general outline in collaboration with Packt's content managers
- · Researched the various topics referenced in the book
- Wrote reference code designed as "recipes", i.e. general code snippets applicable to many projects
- Elaborated the code in an engaging, easy to read and fun way
- · Included background information related to the technology at hand and practical tips related to the topic
- Refined the content of the book in collaboration with editors and technical reviewers

isitvegan.app Remote

CO-DEVELOPER May 2019

- User friendly querying of vegan food and additives on desktop and mobile, especially e-numbers
- Live under https://www.isitvegan.app
- Developed with a friend in our spare time
- · Automatic data import and analysis from different sources
- Filled in information gaps on Wikipedia

Messerli Informatik AG TEAM LEAD, PRODUCT OWNER

Spreitenbach, Switzerland

August 2019-September 2019

- Planned and executed the creation of a new updater/installer as well as the server infrastructure for new development
- Led a team of up to seven software developers and designers
- Discussed implications of breaking changes with other team leads
- Documented architecture and workflows of new products

Kanton Aargau Diverse

FEDERAL EXAMINER FOR VOCATIONAL DIPLOMA IN COMPUTER SCIENCE

August 2019–Ongoing

- German: IPA Experte für EFZ in Informatik, Fachrichtungen Applikationsentwicklung und Systemtechnik
- I supervise and examine the young adults on their final project for their vocational
- This involves consulting them for their work and their final presentation, which I then grade
- · This is followed by an an oral exam prepared by me. If they pass this as well, the candidate receives the federal EFZ
- Frequently, I am assisted by a new co-examinator who is learning from me

Department of Neurosurgery (USZ) in collaboration with the Institute of Neuroinformatics (UZH / ETHZ)

Zurich, Switzerland

RESEARCH INTERNSHIP July 2021-August 2021

- · Implemented features according to researcher's specifications in order to create an interactive HFO detection program
- Analyzed iEEG and ECoG data using python and MatLab
- · Reviewed existing code and taught programming techniques like test driven design, software architecture and deterministic builds

Skills

Programming Languages Rust, C++, C#, C, Java, TypeScript, JavaScript, Python, F#, SQL, Haskell, bash

> **Backend** Test-driven Development, Clean Architecture, Clean Code, Neural Networks, Machine Learning

> > Functional Programming, Object Oriented Programming, Pair Programming, REST

Frontend WebAssembly, HTML5, CSS, REST

Databases MariaDB, MySql, PostgreSQL, Redis, Microsoft Access DevOps Continuous Integration, Docker, Sonar, Travis

Tools Git, GitHub, PowerShell, LATEX, Unity Engine, Microsoft Office, Microsoft Excel

Operating Systems Windows, Windows Server, macOS, Debian Linux, Fedora Linux

> Scrum Developer, Product Owner, Scrum Master

Administrative Team Leadership, Requirement Analysis, Documentation, Work Organization on a Yearly, Monthly and Daily Basis

Languages German (First language), English (Fluent), French, Spanish

Biology and Chemistry Basic lab skills, DNA cloning

Education

Alte Kantonsschule Aarau Aarau, Switzerland

SWISS GENERAL BACCALAUREATE (VOLUNTARILY PREMATURELY TERMINATED)

August 2013-July 2014

- · Specialization in life sciences and mathematics
- · Prematurely terminated in order to gain private sector know-how

Messerli Informatik AG & Berufsschulen Berufsbildung Baden

Spreitenbach & Baden, Switzerland

SWISS FEDERAL VET DIPLOMA OF COMPUTER SCIENCE IN THE DISCIPLINE OF APPLICATION DEVELOPMENT

September 2014-September 2018

- · Extracurricular activities: Attended game design course
- Final grade: 5.1 (1 is worst, 6 is best)

Berufsbildung Baden SWISS FEDERAL VOCATIONAL BACCALAUREATE

Baden, Switzerland

September 2014-September 2018

- Enlisted in immersion class: Some subjects where in English
- Final grade for subjects: 4.8 (1 is worst, 6 is best)
- · Final grade for interdisciplinary project "Image Recognition with Artificial Neural Networks": 5.3 (1 is worst, 6 is best)

Zürich, Switzerland

AKAD

• Final grade: 28 out of 30 points (Valedictorian)

• This degree guarantees access to all Swiss universities and is generally seen as an equivalent of the Swiss Matura

University of Zurich Zürich, Switzerland

BACHELOR OF SCIENCE IN BIOMEDICINE WITH A MINOR IN NEUROINFORMATICS

August 2020-Ongoing

August 2019-August 2020

Currently studying for 40 ECTS per semester

PASSERELLE

Publications

Rust Standard Library Cookbook

Remote

AUTHOR September 2017–April 2018

- Wrote a book aimed at intermediate Rust developers
- ISBN: 978-1788623926
- Amazon
- · Packt Pub

Combining Neuro-Evolution of Augmenting Topologies with Convolutional Neural Networks

Baden, Switzerland

Researcher & Author

January 2016-January 2017

- Conducted research on new ways to evolve artificial intelligence for optical recognition
- ResearchGate

Trainable Sequence Learner

Zurich, Switzerland

RESEARCHER & CO-AUTHOR

March 2022 - June 2022

- Created an analog circuit for a chip that can be trained to recognize sequences of inputs
- ResearchGate

Certificates

ECDL Standard, ICDL / ECDL	Aarau, Switzerland
ECDL Advanced, ICDL / ECDL	Aarau, Switzerland
2016 DELF (Diploma in French Language Studies) B1. International Centre for French Studies	Lucerne,
2010 DELF (Diploma in French Language Studies) DI, international Centre for French Studies	Switzerland
Professional Scrum Master, Scrum.org & Digicomp Academy AG	Zurich, Switzerland
Azure DevOps Gold Competency Assessment, Microsoft	Remote
	ECDL Advanced, ICDL / ECDL DELF (Diploma in French Language Studies) B1, International Centre for French Studies Professional Scrum Master, Scrum.org & Digicomp Academy AG

References

André Messerli Ennetbaden, Switzerland

EXECUTIVE CEO AT MESSERLI INFORMATIK AG

■ andre.messerli@messerli.ch

André worked closely with me on the planning of our new products. We formed ideas, discussed them with other team leads, evaluated pros and cons and documented our decisions together. He was a great teacher to me in leadership, decision making and economics. I owe my administrative skills to him.

Thomas Bruderer Zürich, Switzerland

CTO AT MESSERLI INFORMATIK AG

■ ThomasBruderer@gmx.net

Thomas and me were always trying to modernize the company's code, work culture and design philosophy, which lead to us forming a team tasked with the development of new services and rewriting existing products.

Professor Johannes Sarntheim

Zürich, Switzerland

DEPARTMENT OF NEUROSURGERY, UNIVERSITÄTSSPITAL ZÜRICH

■johannes.sarnthein@usz.ch

I worked in Johannes' group for my research internship, where I learned a lot about analysis of biomarkers in the brain from him and his colleagues. I am also thankful for the time he invested in helping me with my academic communication skills.

Professor Giacomo Indiveri Zürich, Switzerland

Institute of Neuroinformatics, University of Zurich / ETH Zurich

During my research practical I also got to know Giacomo, who later would teach and co-examine me in Neuromorphic Engineering I and II. From him I gained a significant part of my electrical engineering knowledge. The experiences I got from working with his group and attending his lectures did also culminate in my current plan to do my master's degree in Neural Systems and Computation at his institute.