

Benjamin Gallusser

Machine Learning Enthusiast



Contact

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Coding skills

👍👍👍 Python
👍👍 C++, C
👍 Java, Matlab, JS
ML: Pytorch, Tensorflow
web: Django, Typo3

Personal info

date of birth
03 Apr 1993

nationalities
CH, GER, USA

languages
native 🇩🇪
fluent 🇬🇧 & 🇪🇸
proficient 🇫🇷
intermediate 🇮🇹

interests

creating & playing music
complex board games
traveling by bicycle
competitive sports

Education

- 2016 – 2019 **M.Sc. Computer Science** ETH Zürich
GPA: 5.2 on a scale from 6 (excellent) to 1 (failure)
Focus areas: Deep Learning, NLP, Computer Vision
Master's thesis at HHMI Janelia, USA
- 2012 – 2016 **B.Sc. Informatics** TU München
GPA: 1.7 on a scale from 1 (excellent) to 5 (failure)
Student exchange (two semesters) at Universidad Austral de Chile
- 2011 **German high school diploma (Abitur)** Gymnasium Penzberg
GPA: 1.0 on a scale from 1 (excellent) to 6 (failure)

Working experience

- Nov'18 – Feb'19 **Data Science Consulting Intern** McKinsey & Company
• extracted target events for global predictive maintenance of medical diagnostic equipment
• data engineering for optimizing an industrial aluminum plant
• overhauled technical material for Advanced Analytics capability building
- Oct'17 – Jul'19 **Teaching Assistant for Advanced Machine Learning** ETH Zürich
created and held large tutorial sessions (~100 participants)
& project supervision for the CS Master's courses Natural Language Understanding and Advanced Machine Learning
- Nov'16 – Mar'18 **Research Assistant** Institute for Machine Learning, ETH Zürich
• collaborated on sleep stage classification based on CNN and HMM with accuracy comparable to human experts;
publication in PLOS Computational Biology 📄
• full design, development and system administration of the web service 📄; collaborators upload large sleep signals, which are evaluated on GPU
- Jul'13 – Oct'13 **Back-end developer (internship)** Datamints GmbH
• developed internal project status presentation software for weekly team meetings
• side project: Chrome add-on to combine online search with searching the company's knowledge base
- Sep'11 – May'12 **Warehouse Associate (internship)** Klüber Lubrication North America
introduction to logistics, supply chain management and customer support

Selected academic projects

- **Graph Neural Networks** 📄 (Master's thesis, with Jan Funke) for supervoxel agglomeration in a 3d neuron reconstruction pipeline, working with terabytes of microscopy images
- Single-core **high performance implementation** 📄 of Latent Dirichlet Allocation in C (11x speedup compared to the author's C implementation)
- **Generative Adversarial Networks** 📄 for document style transfer, using Machine Learning to change a PDF document layout while keeping the text
- **Chatbot** 📄 capable of conducting a casual conversation, trained on movie conversational data based on seq2seq and MMI cost function
- **Deep Learning** 📄 (Bachelor's thesis) for Recognition of Protein Domains from Contact Maps, simplifying a step in a protein structure prediction pipeline
- **Sentiment Classification** 📄 of Tweets using an LSTM network (87% accuracy)