

# Benjamin Gallusser

Machine Learning Enthusiast



## Contact

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## Coding skills

👍👍👍 Python  
👍👍 C++, C  
👍 Java, Matlab, JS

ML: tensorflow, pytorch  
web: Django, Typo3

## Personal info

**date of birth**  
03 Apr 1993

**nationalities**  
CH, GER, USA

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

**interests**  
complex board games  
creating & playing music  
doing competitive sports

## Education

- 2016 – 2019 **M.Sc. Computer Science** ETH Zürich  
*at the #2 CS department worldwide (THE ranking 2019)*  
*current GPA: 5.4 on a scale from 6 (excellent) to 1 (failure)*  
*Master's thesis at Janelia Research Campus, 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)*

## Selected academic projects

- **Currently: Master's thesis on Graph Neural Networks** for supervoxel agglomeration in a neuron segmentation pipeline, based on terabytes of electron microscopy images 📄
- **Generative Adversarial Networks (GAN)** 📄 for document style transfer, achieving state-of-the-art results
- Interdisciplinary analysis of the **legal, economic, ethical and political implications of the big data revolution** in a four-months seminar
- Single-core **high performance implementation** 📄 of Latent Dirichlet Allocation in C (11x speedup compared to the author's C implementation)
- **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)

## Working experience

- Nov/18 – Feb/19 **Data Science Consulting Intern** McKinsey & Company  
*working on Predictive Maintenance systems and Advanced Analytics studies & capability building*
- Oct/17 – Jul/19 **Teaching Assistant for Advanced Machine Learning** ETH Zürich  
*creating and holding 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
  - collaborating 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
  - developing 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 – Nov/12 **Warehouse Associate (internship)** Klüber Lubrication North America  
*introduction to logistics, supply chain management and customer support*