Brian Pulfer

me@brianpulfer.ch

brianpulfer.ch | brianpulfer.ch/github | brianpulfer.ch/linkedin | brianpulfer.ch/scholar

EDUCATION

UNIGE - University of Geneva — Geneva, Switzerland
Ph.D. in Machine Learning — *Nov. 2021 – Nov. 2026*

USI - University of Southern Switzerland — Lugano, Switzerland
MSc in Artificial Intelligence (GPA 9.1/10) — *Aug. 2019 – Jun 2021*

SUPSI - University of Applied Sciences of Southern Switzerland — Manno, Switzerland
BSc in Computer Science (GPA 5.0/6) — *Aug. 2016 – Jun 2019*

EXPERIENCE

Ph.D. Software Engineering Intern — June 2025 – September 2025
Meta Platforms Inc — *Menlo Park, California, United States of America*
- Software Engineer for the GPU Techniques Team.

Ph.D. Student in Machine Learning — November 2021 – November 2026
University of Geneva — *Geneva, Switzerland*
- Researching SSL vision models and relative robustness to adversarial attacks.
- Teaching Assistant for Algorithms and Data Structures courses.

Machine Learning Intern — July 2020 – August 2020
University of Southern Switzerland — *Lugano, Switzerland*
- Developed a tool for automatic collection and cleaning of a dataset through web crawling and heuristics.
- Applied state-of-the-art techniques for image classification, segmentation, and object detection.

Competitions & Hackathons
- Classified 3rd in the *NeurIPS Weather4cast Challenge 2022* by leveraging transformers for videos.
- USI Hackathon 2019, START Hack 2021, HackZürich 2022. Winner of HackZürich 2023.

SELECTED PUBLICATIONS

- *Task-Agnostic Attacks Against Vision Foundation Models*
  The 5th Workshop of Adversarial Machine Learning on Computer Vision: Foundation Models + X
  The IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2025)

- *Robustness Tokens: Towards Adversarial Robustness of Transformers*
  18th European Conference on Computer Vision ECCV 2024

- *Mind the Gap! A Study on the Transferability of Virtual vs Physical-world Testing of Autonomous Driving Systems.*
  IEEE Transactions on Software Engineering

- *Model vs system level testing of autonomous driving systems: a replication and extension study.*
  Empirical Software Engineering.

LEADERSHIP & AWARDS

Hackathon Organizer — Nov. 2020 - Nov 2021
- Organizer of the first edition of the *Formula USI* Hackathon at the University of Southern Switzerland.

SODESKA Scholarship — April 2021
- Scholarship awarded on merit to students of the University of Southern Switzerland.

TECHNICAL SKILLS

Programming Languages: Python, C/C++, CUDA, JavaScript, Java
Frameworks: Pytorch, Pytorch-Lightning, Jax, Flax, Tinygrad
Developer Tools: Git, CI/CD, Linux, ssh, SLURM, pip, Anaconda, Docker, VSCode, pre-commit
Libraries: accelerate, albumentations, datasets, einops, scikit-learn, opencv-python, hydra, numpy, matplotlib, pandas, pre-commit, seaborn, timm, transformers, torchvision, wandb