Emilien Guandalino

Computer Science Master

École Polytechnique Fédérale de Lausanne (EPFL)

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About me

EPFL master student with a strong academic background in Theoretical Computer Science and Computer Systems. Through professional experience in research, I am accustomed to collaborating on large projects, where effective teamwork and communication are expected. I am dedicated and quick to learn, always focused on delivering results.

Academic

EPFL (École Polytechnique Fédérale de Lausanne), Switzerland

M.S. in Computer Science (2022 - 2025)

- Specialization: Computer Science Theory
- GPA: 5.5/6

B.S. in Computer Science (2019 - 2022)

- GPA: 4.9/6

Professional Experience

Siemens R&D Smart Infrastructure, Switzerland

Working Student - Data Analytics (1 year, 2022-2023)

- Bayesian Networks, Inference, Fault Detection and Diagnosis - Python

Onsite Internship - Cloud and Infrastructure (3 months, 2022)

- CI/CD pipeline and infrastructure deployment on AWS

Projects

Academic

- EPFL Software Development Project 2022 - **RateMyEPFL**, a Kotlin mobile application
  University awards: *Project of the Year* and *Best Team Award*
- Research Project Assistant: Speeding Up Full-System Simulation of Hardware Accelerators
  Worked on decoupling Functionality from Performance simulation in HW accelerators. Designed general interfaces to combine the two in order to speed up cycle-accurate simulation
- Decentralized Systems Engineering: Gossip-based peer-to-peer system in Go, Consensus
  Project Extension: Distributed matrix factorization for content recommendation
- Machine Learning: Enhanced Green Fluorescent Protein (eGFP) cell classification, CNNs
  In collaboration with life sciences laboratory at EPFL
- Optimization for ML: Evaluated the effects of Stochastic Gradient quantization on convergence rates
- Advanced Multiprocessor Architecture: Designed a Load-aware Generator for Online Services
  Uses Statistical tools and Control Theory to optimize Throughput under Tail Latency constraints

Martial Arts and traveling gap year in China

- 9 months training with Shaolin master in Northern China
- Rigorous and intense training, traditional Shaolin forms and Chinese kickboxing
- Practice starts at 6am sharp, 8 to 9 hours everyday
- Tenacity, mental discipline and perseverance

Courses Taken

Theoretical Computer Science: Advanced Algorithms, Distributed & Concurrent Algorithms, Machine Learning, Optimization for Machine Learning, Foundations of Probabilistic Proofs, Markov Chains and algorithmic applications, Statistical Physics of Computation

Computer Systems: Decentralized Systems Engineering, Systems for data management and data science, Advanced Multiprocessor Architecture, Principles of Computer Systems

Skills

C/C++, Bash, Go, Java, Scala, Python, SQL

Agile (SCRUM), Git, CI/CD, Terraform, AWS

Fluent English and native French

I also give kickboxing lessons :)