FOTEINI STRATI

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www.linkedin.com/in/foteini-strati ◇ https://fotstrt.github.io/

EDUCATION

ETH Zurich, Switzerland Nov. 2021 - now
PhD in Computer Science
EASL research group
Advisor: Prof. Ana Klimovic
Research Interests: Systems for Machine Learning, Cloud Computing
Thesis Topic: Increasing resource utilization and fault-tolerance for machine learning workloads

ETH Zurich, Switzerland Sep. 2019 - Sep. 2021
MSc in Computer Science
90 ECTS, GPA: 5.29/6.0
Thesis: Characterising Resource Elasticity and Fault Tolerance in Distributed Machine Learning

National Technical University of Athens, ECE School, Greece Dec. 2013 - Feb. 2019
Diploma in Electrical and Computer Engineering
300 ECTS, GPA: 9.02/10
Major in Computer Systems and Software
Thesis: Study and design of concurrent priority queues for NUMA architectures

PUBLICATIONS

- **Foteini Strati**, Sara Mcallister, Amar Phanishayee, Jakub Tarnawski, Ana Klimovic, DéjàVu: KV-cache Streaming for Fast, Fault-tolerant Generative LLM Serving , ICML 2024
- **Foteini Strati**, Paul Elvinger, Tolga Kerimoglu, Ana Klimovic, ML Training with Cloud GPU Shortages: Is Cross-Region the Answer?, EuroMLSys 2024
- **Foteini Strati**, Xianzhe Ma, Ana Klimovic, Orion: Interference-aware, Fine-grained GPU Sharing for ML Applications, EuroSys 2024
- Maximilian Böther, **Foteini Strati**, Viktor Gsteiger, Ana Klimovic, Towards A Platform and Benchmark Suite for Model Training on Dynamic Datasets, EuroMLSys 2023
- Joel Andre*, **Foteini Strati***, Ana Klimovic, Exploring Learning Rate Scaling Rules for Distributed ML Training on Transient Resources, DistributedML 2022
- **Foteini Strati***, Christina Giannoula*, Dimitrios Siakavaras, Georgios Goumas, Nectarios Koziris, An Adaptive Concurrent Priority Queue for NUMA Architectures, ACM International Conference on Computing Frontiers, 2019

INDUSTRY EXPERIENCE

Microsoft Research, Redmond, US June 2023 - September 2023
Research Intern
Mentor: Amar Phanishayee

- Developed techniques to improve performance in Generative Large Language Model serving.

NVIDIA, Switzerland June 2022 - September 2022
Software Engineering Intern
Mentors: Eric Hall and Ville Kallioniemi

- Implemented and analyzed the impact of resource elasticity in distributed ML training for autonomous driving workflows.
- Improved average job scheduling time by an order of magnitude.

Huawei Zurich Research Center, Switzerland Sep. 2020 - Feb. 2021
Cloud Architectures Research Intern
Mentors: Bill McColl and Albert-Jan Yzelman

- Fault-tolerant programming models and systems for cloud and HPC applications.

Centaur Analytics, Athens, Greece
Junior Software Engineer Jan. 2019 - Aug. 2019

- CO_2 emission forecast in silos with time series analysis and genetic algorithms.

AWARDS

- ML and Systems Rising Stars July 2024
- ETH Medal 2022 for outstanding Master's thesis Feb 2022
- NTUA Thomaidio Award 2019 for paper publication in international conference June 2020

SKILLS

C, C++, CUDA, Python, Assembly (ARM, 8086), PyTorch, Ray, RocksDB, Apache Kafka, Kubernetes, MPI, OpenMP, Git, Unix, LaTeX

TEACHING EXPERIENCE

ETH Zurich, Teaching Assistant
Cloud Computing Architecture 2022, 2023, 2024
Seminar on Machine Learning Systems 2022, 2023
Systems Programming and Computer Architecture 2022

ETH Zurich, Project Mentorship
Ixeia Sánchez Périz: *Towards optimal resource allocation and communication schedule for ML training in the Cloud*, (MSc Thesis) ongoing

Paul Elvinger: *Towards resource and interference-aware scheduling of ML workloads*, (MSc Thesis) ongoing

Carlos Serrano Fernandez: *Resource analysis of Large Language Models*, (Semester project) ongoing

Paul Elvinger, Tolga Kerimoglu:
Enabling efficient ML training across datacenters, (Semester project) 2023

Xianzhe Ma: *Evaluating GPU sharing policies for ML workloads*, (Semester project) 2023

Xindi Zuo: DMA for Non-Volatile Memory, (MSc thesis) 2023

Jingyi Zhu: *Evaluating the performance of NCCL collectives in the cloud*, (Semester project) 2022

Joel André: Accurate, elastic large-scale distributed training over transient resources, (BA Thesis) 2022

National Technical University of Athens, Lab Assistant
Operating Systems Feb. 2018 - June 2018
Introduction to Programming Sep. 2016 - Feb. 2017

SERVICE

- OSDI '22 and ATC '22 artifact evaluation committee April 2022 - June 2022