Zack Sifakis

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EDUCATION

PhD Electrical and Computer Engineering, May 2028 (expected graduation)
University of Wisconsin-Madison

- GPA: 4.0/4.0
- Advisor: Prof. Dimitris Papailiopoulos
- Coursework: Machine Learning, Advanced Natural Language Processing, Foundational Models & Future in Machine Learning, Theoretical Foundations in Large-Scale Machine Learning, Probability & Information Theory in Machine Learning, Computer Vision

Bachelor and Master of Science Electrical and Computer Engineering, October 2022
Technical University of Crete (TUC)

- Thesis: *"Asynchronous Inference for Security Applications" (Grade 10/10)*
- GPA: 9.37 /10 ("Distinction") *(graduated 1st in my class)*
- Coursework: Introduction to Probabilistic Graphical Models and Inference Algorithms, Statistical Modeling and Pattern Recognition, Linear Algebra, Statistical Signal Processing for Telecommunications, Machine Vision, Stochastic Processes and Time Series Analysis, Information Theory and Coding, Number Theory and Cryptography, Computer Networks II

RESEARCH EXPERIENCE

Research Assistant, August 2023 - Present
MLOpt Research Group, University of Wisconsin-Madison

- Currently working on Large Language Models and Machine Learning.

Undergraduate Research Assistant, July 2021 - October 2022
Telecommunication Systems Research Institute (TSI), Technical University of Crete, Greece

- Developed an algorithmic framework for distributed and asynchronous iterative algorithms.
- Implemented a human presence detection security application using MATLAB.

Lab and Research Assistant, July 2020 - August 2020
Signal Processing Lab (SPL), FORTH-ICS, Heraklion, Greece

- Carried out research in single-image depth prediction and estimation algorithms utilizing 3D microscope images of a cow model.
- Performed video depth estimation using real-time footage shot from handheld mobile phone camera.

SKILLS

- **Programming:** Python, MATLAB, Java, C/C++, R, SQL, VHDL
- **Software and Tools**: Git, Pytorch, TensorFlow, NumPy, Pandas, Docker, LaTeX
- **Global Languages:** English (fluent), German (upper intermediate), Greek (native)

TEACHING EXPERIENCE

Teaching Assistant, Department of Electrical and Computer Engineering, UW-Madison
- Taught Introduction to Artificial Neural Networks (ECE/CS/ME 539) and Signals and Systems (ECE 330)
- Explained foundational and advanced concepts in deep learning, machine learning to a class of 90 students.
- Conducted office hours to assist students with assignments and coding problems, clarify doubts and provide additional learning support.
- Prepared course materials, including in-class activities, homework, and supplementary resources.
- Evaluated student performance by grading assignments, exams, and homework.

PUBLICATIONS

- Zheyang Xiong, Ziyang Cai, John Cooper, Albert Ge, Vasilis Papageorgiou, Zack Sifakis, Angeliki Giannou, Ziqian Lin, Liu Yang, Saurabh Agarwal, Grigorios G Chrysos, Samet Oymak, Kangwook Lee, Dimitris Papailiopoulos. "Everything Everywhere All at Once: LLMs can In-Context Learn Multiple Tasks in Superposition". ICML 2025 (**Spotlight**).

HONORS & AWARDS

- Academic Distinction, TUC
- Scholarship from State Scholarships Foundation & ANEK Sea Lines Award for graduating 1st in my class, TUC
- Honorary award for the best academic performance in TUC for the 2nd and 3rd year of my studies
- Scholarship from Alkiviadis Papadrakakis Foundation for graduating high school top of my class

LEADERSHIP & VOLUNTEERING

- Participated in Youth Exchange Erasmus+ program "Promoting Gender Equality and Social Dialogue" about gender equality in Copenhagen, Denmark
- Provided humanitarian assistance to the earthquake-stricken residents of Arkalochori
- Volunteered in the 7th Chania Film Festival
- Participated in Youth Exchange Erasmus+ program "People are Strange when you're a Stranger" about social inclusion and discrimination in Slovakia
- Member of the University Student Theater Group
- Member of the University Student Cinema Group
- Volunteered in the TUC Science & Technology Festival for primary school children