

GEORGE TYPALDOS

Curriculum Vitae



New Haven, Connecticut
george.typaldos@yale.edu
<https://giotyp.github.io>

EDUCATION

- 2023 – Present **Computer Science Ph.D.**
Yale University
- 2023 – 2025 **Computer Science MSc**
Yale University
- 2017 – 2023 **Electrical & Computer Engineering BSc & MSc**
National Technical University of Athens

TEACHING EXPERIENCE

SEP – DEC 2025
Computer Science Department, Yale University
Teaching Assistant

Teaching Assistant at the *CPSC 1100: Python Programming for Humanities and Social Sciences* and *CPSC 4900: Senior Project Research* courses. I am tasked with administrative work, holding office hours, and leading discussion sections for Python Programming.

JAN – MAY 2025
Computer Science Department, Yale University
Teaching Assistant

Teaching Assistant at the *CPSC 323: Introduction to Systems Programming & Computer Organization* course. I was tasked with setting up and correcting programming assignments relevant to systems programming and holding office hours.

RESEARCH EXPERIENCE

AUG 2023 – PRESENT
Efficient Computing Lab, Yale University
Graduate Student Researcher

My research currently focuses on computer systems, and specifically on low-latency streaming applications. I have been building a framework to support the rapid and easy prototyping of such applications, which require careful memory management, dependency resolution, and tight latency constraints. I also research topics related to LLM serving as well as quantum computing security.

MAR – NOV 2022
MicroLab, NTUA & CERN
Undergraduate Research Assistant

Upgraded the CERN BLoND (Beam Longitudinal Dynamics) simulation suite. Developed a robust and efficient GPU implementation by using Python and the CuPy library resulting in enhanced capabilities and significant execution speedup.

PUBLICATIONS

- S. Kouteili, H. Madhu, G. Typaldos, M. Santolucito. "Embedding Alignment in Code Generation for Audio". *2025 NeurIPS AI4Music Workshop*
- G. Typaldos, T. Trochatos and J. Szefer. "Quantum Circuit Cutting: A Security Methodology". *2025 IEEE International Conference on Quantum Computing and Engineering (QCE)* – to be published
- G. Typaldos, W. Tang and J. Szefer. "Leveraging Quantum Circuit Cutting for Obfuscation and Intellectual Property Protection". *2024 IEEE International Conference on Quantum Computing and Engineering (QCE)* doi: 10.1109/QCE60285.2024.00212
- H. Timko, S. Albright, T. Argyropoulos, H. Damerau, K. Iliakis, ..., **G. Typaldos** (November 2023). Beam longitudinal dynamics simulation studies. *Physical Review Accelerators and Beams*, doi: 10.1103/PhysRevAccelBeams.26.114602

PROGRAMMING SKILLS

Advanced	Rust, Python, C/C++, Qiskit
Intermediate	Java, PyTorch, Shell Script, CUDA, Assembly
Beginner	Wasm, SML, Prolog, VHDL-Verilog, Cirq
Tools	Git/Github, Ray, NVIDIA NSight, Intel VTune, Apache Flink

LANGUAGE SKILLS

GREEK	Native Language
ENGLISH	Fluent
GERMAN	Proficient

VOLUNTEERING

Unique Minds (NGO)

Oct 2018 - Jun 2023
Organized three academic orientation events with the participation of over 500 total high-school students. Managed teams of 70 volunteers and acquired public speaking experience.

Institute of Electrical and Electronics Engineers

Jan 2021 - Jun 2023
Member of the Computer Science Chapter of IEEE's student branch at National Technical University of Athens, studying fields of Quantum Computing and Cybersecurity, and organizing respective educational events.