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 quantum computing security, currently focused on how circuit cutting can provide efficient security guarantees.

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

G. Typaldos, T. Trochatos and J. Szefer. "Quantum Circuit Cutting: A Security Methodology". *2022 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	Shell Script, Java, Assembly (AVR, RISC-V)
Beginner	Wasm, SML, Prolog, VHDL-Verilog, Cirq
Tools	Git/Github, Ray (Anyscale)

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.