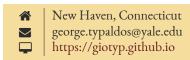
GEORGE TYPALDOS





EDUCATION

2023 - Present Yale University

2023 - Computer Science MSc
2025 Yale University

2017 - 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.