

GEORGIOS ANASTASIOS TYPALDOS

Curriculum Vitae



New Haven, Connecticut
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<https://github.com/Giotyp>

EDUCATION

2023 – Present	Computer Science Ph.D. Efficient Computing Lab, Yale University
2017 – 2023	BSc & MSc (5-year, 300 ECTS) Electrical and Computer Engineering (ECE) National Technical University of Athens (NTUA)
Field	Electronics and Systems
Sectors	Computer Systems Electronics-Circuits-Materials Electromagnetic Waves & Telecommunications
Grade	8.42/10

THESIS

Title	Beam Longitudinal Dynamics Simulation Code Acceleration with GPUs MicroLab & CERN
Supervisors	Prof. Dimitrios Soudris (MicroLab, NTUA) Dr. Konstantinos Iliakis (CERN, SY-RF-BR)

RESEARCH EXPERIENCE

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.

INTERNSHIP

OCT 2018 – FEB 2019
Computer Science Laboratory, NTUA
Lab assistant

Tasked with assisting first-year students in "Computer Programming" Course, specifically in C++ programming.

PUBLICATIONS

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

CERTIFICATIONS

MAY 2023	Quantum Spring Challenge 2023 Participated in 5-day Qiskit programming event IBM
JUN, NOV 2022	Quantum Spring, Fall Challenge 2022 Participated in 5-day Qiskit programming event IBM
APR 2022	QSilver5-27 Quantum Computing & Programming workshop QWorld Association for QGreece
FEB 2021	QBronze53 Quantum Computing & Programming workshop QWorld Association for QGreece

PROGRAMMING SKILLS

Advanced	Rust, Python, C/C++, Qiskit
Intermediate	Shell Script, Java, Assembly (AVR, RISC-V)
Beginner	SML, Prolog, VHDL-Verilog, Cirq
Tools	Git/Github, RAY (Anyscale)

LANGUAGE SKILLS

GREEK	Native Language
ENGLISH	TOEFL iBT: 114/120
GERMAN	European Level C1 (Goethe Zertifikat)