

# GEORGIOS ANASTASIOS TYPALDOS

## Curriculum Vitae

Athens, Greece  
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typaldosgeorge@gmail.com  
https://github.com/Giotyp

### EDUCATION

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

H. Timko, S. Albright, T. Argyropoulos, K. Iliakis, B. E. Karlsen-Bæck, I. Karpov, A. Lasheen, L. Medina, D. Quartullo, J. Repond, J. Esteban Müller, M. Schwarz, P. Tsapatsaris, **G.Typaldos** (October 2022). Beam Longitudinal Dynamics Simulation Suite BLonD. *Physical Review Accelerators and Beams*, [under peer-review]

### 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 Python, C/C++

Intermediate Shell Script, Java, Assembly (AVR, RISC-V)

Beginner SML, Prolog, VHDL-Verilog

Tools Git/Github

### LANGUAGE SKILLS

GREEK Native Language

ENGLISH TOEFL iBT: 114/120

GERMAN European Level C1 (Goethe Zertifikat)

### VOLUNTEERING

**Unique Minds (NGO)**  
Oct 2018 - Present  
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 - Present  
Member of the Computer Science Chapter of IEEE's student branch at NTUA, studying fields of Quantum Computing and Cybersecurity.