Christos Lamprakos *October 5, 1994*

Last update on June 27, 2025

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Education

National Technical University of Athens & KU Leuven — Athens, Greece & Leuven, Belgium
Doctor of Philosophy — *2019 – 2025*
- "Enabling Behavior-Based Energy and Memory Optimizations in Native Contexts"
- Worked on introducing formal methods to dynamic memory allocation, i.e., `malloc` et al. Ended up implementing the state of the art in *static* memory allocation (NP-complete).

National Technical University of Athens — Athens, Greece
Master of Engineering in Electrical & Computer Engineering — *2012 – 2017*
- Master's thesis: Prototype for a Smart Thermostat employing Reinforcement Learning

General High School of Epidaurus — Lygourion, Greece
Apolytirion — *2009 – 2012*
- Top score (1% overall, 0.1% in Mathematics) in national university entrance exams.

Projects

idealloc: A high-performance, low-fragmentation static memory allocator written in Rust (code; paper).

Miscellaneous: Reinforcement learning for HVAC control in MATLAB. Neural network training/inference with PyTorch and TensorFlow. LLVM-backed compiler for toy language in C++. Low-overhead tracing of `malloc` calls in Rust. "Copycat" allocator in Rust.

Work Experience

Institute of Communication & Computer Systems — Athens, Greece
Research Associate — *Sept '19 – Present*
Took ownership of several deliverables for Horizon EU research projects. Collaborated with researchers and engineers from all across the continent.

imec — Leuven, Belgium
Intern — *Apr '23 – Jul '23 & May '24 – Aug '24*
Investigated performance improvements for the Compute System Architecture group's software stack, targeting dynamic memory allocation and Rust-based parallel discrete event simulation components.

Accenture — Athens, Greece
Junior Software Engineer — *Sept '18 – Aug '19*
Team designed, built and tested CRM enhancements for major Greek telco operator.

Institute of Nanoscience & Nanotechnology, NCSR Demokritos — Athens, Greece
Intern — *Jul '17 – Oct '17*
Studied chimera states in LIF-modeled biological neurons. Explored Hebbian learning and observed STDP-like behaviors.

Technologies

Programming languages: Mainly working with Rust. Familiar with C, C++ and Python.
Systems: Comfortable with the Linux programming interface. Heavy user of LLDB for debugging.
Miscellaneous: LaTeX, Markdown for technical writing, `git` for version control.

Scholarships

Hellenic Foundation for Research & Innovation — Athens, Greece
PhD Grant — *2022 – 2024*
Independently wrote grant proposal, scored 88.94/100.

Panayiotis Triantafyllides Foundation — Athens, Greece
Scholarship for Undergraduate Studies — *2012 – 2017*
Secured via written exam competition on Physics, Greek Language.