

Georgios Liargkovas

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Education

Columbia University

PhD in Computer Science

New York, NY, USA

Sep 2024 - Present

- **Advisor:** Prof. [Kostis Kaffes](#)
- **Anticipated graduation:** May 2029

Athens University of Economics and Business (AUEB)

BSc in Management Science & Technology

Athens, Greece

Sep 2018 - Mar 2023

- **Grade:** 9.37/10 (2nd among 120 students – top 1.6%)
- **Major:** Software Engineering and Data Analysis
- **Thesis title:** Scientific Collaboration and Diasporas - The case of Greek and Finnish co-authorship network.

Research and Work Experience

Brown University

Visiting Research Fellow (**Advisor:** [Prof. Nikos Vasilakis](#))

Providence, RI, United States

Oct 2022 - May 2024

- Created hs a speculative, out-of-order execution engine of POSIX shell scripts. 📄
- Co-developed [try](#), a lightweight tool that lets users run a command and inspect its effects before changing their live system, via Linux's namespaces and the Overlayfs union filesystem (5.3k+ Github stars).
- **Technologies & tools used:** Python, Shell scripting (bash/zsh), Docker, System call tracing & isolation, Linux namespaces, OverlayFS

Athens University of Economics and Business, BALab, AUEB

Junior Researcher (**Advisor:** [Prof. Diomidis Spinellis](#))

Athens, Greece

Mar 2020 - Aug 2024

- Carried out research about the gap between software practitioners' education and industry demands. 📄
- Examined the use of static analysis warning suppression to detect motives behind its use and impact on software. 📄

Secure Open Source Software and Hardware Adaptable Framework (SecOPERA)

Research Software Engineer (**Advisor:** [Prof. Panos Louridas](#))

Athens, Greece

May 2023 - May 2024

- Requirement Specification & Validation and Architectural Design of Secure Open Source Software and Hardware Adaptable Framework (SecOPERA), a hub for open-source solutions funded by an EU Horizon Europe grant. ([link](#))

Ubitech Ltd.

Software Engineering Intern

Athens, Greece

Mar 2022 - Jun 2022

- Implemented backend/frontend components of a Content Management Software (CMS) for Heraklion Archaeological Museum.
- Implemented front-end components for internal e-commerce project.
- **Technologies & tools used:** Java (Quarkus), Docker, Javascript (React, Vue.js), Figma

Publications

Under Review
ICLR '26

Georgios Liargkovas*, Naimeng Ye*, Arnav Ahuja*, Yunan Lu*, Kostis Kaffes and Tianyi Peng, "Speculative Actions: A Lossless Framework for Faster Agentic Systems", *Under Review @ICLR 2026* ([link](#))

ML4Sys @
NeurIPS '25

Georgios Liargkovas, Vahab Jabrayilov, Hubertus Franke and Kostis Kaffes, "An Expert in Residence: LLM Agents for Always-On Operating System Tuning", *To appear at ML for Systems Workshop at NeurIPS 2025*, 2025 ([link](#))

PACMI '25

Georgios Liargkovas, Prabhpreet Singh Sodhi, and Kostis Kaffes, "Set It and Forget It: Zero-Mod ML Magic for Linux Tuning", *4th Workshop on Practical Adoption Challenges of ML for Systems (PACMI '25)*, 2025 ([link](#))

eBPF '25

Prabhpreet Singh Sodhi, Georgios Liargkovas, and Kostis Kaffes, "Empowering machine-learning assisted kernel decisions with eBPFML", *3rd Workshop on EBPF and Kernel Extensions (eBPF '25)*, Coimbra, Portugal, 2025 ([link](#))

HotOS '23

Georgios Liargkovas, Konstantinos Kallas, Michael Greenberg and Nikos Vasilakis, "Executing Shell Scripts in the Wrong Order, Correctly", *19th Workshop on Hot Topics in Operating Systems (HotOS XIX)*, Providence, RI, USA, 2023 ([link](#))

IEEE TE '21

Georgios Liargkovas, Angeliki Papadopoulou, Zoe Kotti and Diomidis Spinellis, "Software Engineering Education Knowledge Versus Industrial Needs", *IEEE Transactions on Education*, 2021 ([link](#))

arXiv preprint

Georgios Liargkovas, Evangelia Panourgia and Diomidis Spinellis, "Quieting the Static: A Study of Static Analysis Alert Suppressions" arXiv preprint, 2022 ([link](#))

Teaching Experience

Athens University of Economics and Business

Programming II (*Undergraduate Level, 2nd year, Students: 180*)

Athens, Greece

Fall 2023

- **Role:** Teaching Assistant (TA)
- Delivered bi-weekly lectures on Compilers, Data Structures, Functional and Generic Programming in Java.
- Aided students in course assignments during weekly lab support sessions.

Athens University of Economics and Business

Applied Software Engineering (*Undergraduate Level, 3rd year, Students: 50*)

Athens, Greece

Spring 2022, 2023

- **Role:** Teaching Assistant (TA),
- Assisted in course assignment evaluation, providing feedback on individual students' assignments.

Athens University of Economics and Business

Introduction to Computer Science (*Undergraduate Level, 1st year, Students: 180*)

Athens, Greece

Fall 2022

- **Role:** Head Teaching Assistant (TA)
- Coordinated course organization, lectures, labs, individual assignments, and final assessment.
- Lectured on a weekly basis on Computer Architecture, Networks, Algorithms, Data Structures and Databases.
- Fully automated final examination by creating a customizable multiple choice exam generator.

Volunteering Experience & Service

EuroSys 2026

Artifact Evaluation Committee Member

Edinburgh, UK

2026

USENIX Annual Technical Conference 2025 (ATC '25)

Artifact Evaluation Committee Member

Santa Clara, CA, USA

2025

EuroSys 2024

Shadow PC Member

Athens, Greece

Apr 2024

International Conference on Mining Software Repositories '23 (MSR '23)

Co-Chair of Web Presence

Lisbon, Portugal

April 2024

International Conference of Software Engineering '22 (ICSE '22)

Student Volunteer

Pittsburgh, PA, USA

May 2022

ESEC/FSE '22 Conference

Student Volunteer

Athens, Greece (Remote)

May 2022

JabRef

Open-Source Software Contributor

Germany (Remote)

June 2021

- Designed and expanded functionality for file import dialog windows ([link](#))
- **Technologies & tools used:** Java (JDK 15, JavaFX)

Honors and Awards

2025 **Research Funding**, DreamSports AI Innovation Center, Columbia University

New York, NY, USA

2024 **SEAS Doctoral Fellowship**, Columbia University

New York, NY, USA

2023 **HotOS Student Grant**, ACM SIGOPS

Providence, RI, USA

2022 **Research Scholarship Award**, Athens University of Economics and Business

Athens, Greece

2022 **ACM SIGSOFT CAPS Grant**, ICSE 2022

Pittsburgh, PA, USA

2022 **ACM SIGSOFT Support Grant**, Student Mentoring Workshop, ICSE 2022

Pittsburgh, PA, USA

2022 **Honorary Award**, Athens University of Economics and Business

Athens, Greece

Languages

English: Fluent - C2 **French:** Intermediate - B2 **Greek:** Native

Skills

Programming C, C++, Java, Go, Python, HTML/CSS, JSP, JavaScript, MATLAB, SQL, Shell scriptng
Miscellaneous Apache Hadoop, Docker, Git, L^AT_EX, LLM Agents, MSSQL Server, MCP, MySQL, Neo4J, Power BI, PyTorch, Redis, SPSS, Shell (Bash/Zsh), TensorFlow2