Georgios Kekkou

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Giorgos Kekkou | giorgoskekkou
Larnaca, Cyprus

Research Interests

- Computer Architecture: Parallelism, Multicore, Multithreaded
- Operating Systems, Virtual Memory, Compilers
- VLSI Design & Testing

Education

- **University of Cyprus** *September 2021 - May 2025*
  BSc, Computer Engineering Nicosia, Cyprus
  - GPA: 9.33/10.00 (Excellent)
  - Concentration area: Computer Hardware Systems and Intelligent Systems.
  - Technical Electives: Computer Architecture, CAD for VLSI, Digital Design with FPGA, Fault Tolerant Systems, Intelligent Systems, Digital Signal Processing.
- **Makarios III Lyceum of Larnaca** *June 2020*
  Secondary Education Larnaca, Cyprus
  - Grade: 19.33/20 (Excellent)
  - Positive Sciences: Mathematics, Physics, Information Technology, Cisco Networks.

Experience

- **Teaching Assistant** *September 2025 - Present*
  Department of Electrical and Computer Engineering, University of Cyprus [🌐] Nicosia, Cyprus
  - Course in charge: Computer Aided Design (CAD) for VLSI.
  - Responsible for the lab sessions of the course.
  - Prepare and update lab materials including tutorials and exercises.
  - Review and mark student's assignments.
- **Research Engineer** *July 2025 - Present*
  KIOS Research and Innovation Center of Excellence [🌐] Nicosia, Cyprus
  - Review and analyze literature on VLSI testing problems to identify relevant research directions.
  - Explore potential innovative approaches that utilize modern machine learning techniques.
  - Reproduce and validate experimental results from prior studies to establish potential gaps for further research.
  - Research Area: VLSI Testing, Machine Learning.
- **Summer Research Intern** *June 2024 - July 2024*
  Texas A&M University [🌐] College Station, Texas, United States
  - Designed a converter tool that combines multiple serverless functions together.
  - Deployed Knative serverless functions to a Kubernetes-based cluster.
  - Apply compiler parsing ideas to design my tool.
  - Study research papers in the serverless computing domain.
- **QA Automation Engineer Intern** *June 2023 - August 2023*
  HF Markets [🌐] Larnaca, Cyprus
  - Developed automated tests using the Selenium WebDriver to test web applications.
  - Designed customized pipelines for integration and testing using the Groovy programming language.
  - Executed and managed pipelines through the Jenkins CI/CD platform.
  - Developed automated tests for the mobile application using Selenium and Appium dedicated for Android and iOS.
  - API testing using Postman, plus integrating them in CI/CD pipelines using Newman.
  - Additional: containerization using Docker, remote testing using Selenium Grid and Zalenium, automated alerts using Python, SQL database manipulation.

Projects

- **Bachelor Thesis: Predicting hard-to-detect faults using Machine Learning** *September 2024 - May 2025*
  Tools: C++, Python, Multiprocessing, Machine Learning , VLSI Testing [🖼]
  ◦ Developed framework for parsing digital circuit, converting to graph, and extracting structural features
  ◦ Implemented Parallel Fault Simulation that schedules the workflow on a multicore machine
  ◦ Constructed Graph Convolutional Network and Support Vector Machine models for classification
  ◦ Experimented with the developed Machine Learning models to predict hard-to-detect faults

- **Texas A&M Summer Internship Project: Serverless Workflow Function Converter** *June 2024 - July 2024*
  Tools: Python, Kubernetes (K3s), Docker, Virtual Machine [🐙][🖼]
  ◦ Developed a compiler-based converter to convert serverless workflows
  ◦ Set up Knative cluster inside a VM to deploy serverless functions using K3s

- **Computer Architecture Lab 5: Cache Simulator** *November 2023 - December 2023*
  Tools: C++, Object-Oriented Programming (OOP)
  ◦ Cache Specifications: Single Word Blocks, Variable Number of Blocks and Ways
  ◦ Cache Organization: Direct Mapped, Set Associative, Fully Associative
  ◦ Cache Replacement: Least Recently Used (LRU), Static Re-Reference Interval Prediction (SRRIP)

- **Computer Architecture Labs 1-4: Processor Simulator** *September 2023 - December 2023*
  Tools: C++, Object-Oriented Programming (OOP), Parser, Implemented: ALU, Memory, Control Unit
  Microarchitectures:
  ◦ Lab 1: Single Cycle
  ◦ Lab 2: Multi Cycle
  ◦ Lab 3: Pipeline - Hazard Free
  ◦ Lab 4: Pipeline - including Hazard Detection and Forwarding Units

Skills

- **Programming Languages:** C/C++, Python, Java
- **Programming Concepts:** OOP, Multiprocessing, Multithreading
- **Web Technologies:** HTML, CSS, JavaScript, Bootstrap, Flask
- **Database Systems:** MySQL, SQLite
- **Machine Learning:** PyTorch, Scikit-learn
- **Developer Tools:** Linux, Bash Scripting, Git, Makefile, Docker
- **Specialized Area:** Computer Architecture, VLSI Testing
- **Other Tools & Technologies:** Selenium WebDriver, CI/CD Pipelines

Honors and Awards

- **Award for Best Academic Performance in Computer Engineering** *June 2025*
  Faculty of Engineering at the University of Cyprus
- **Award for Best Bachelor Thesis project in Computer Engineering** *June 2025*
  Faculty of Engineering at the University of Cyprus
- **Highest GPA among Computer Engineering Students** *2021-2025*
  Faculty of Engineering at the University of Cyprus
- **Second Place in The 3-Minute CSR Video Challenge** *April 2025*
  MENA Business Schools Alliance for Sustainability (MEBAS)
- **Seeds for the Future Scholarship** *March 2025*
  Huawei Technologies (Cyprus)
- **Full Travel Grant Recipient** *June 2024*
  uArch/ISCA 2024

- **Scholarship for Higher Education studies** *2021-2025*
  Panagiotis and Ellis Malli Foundation
- **Scholarship for Undergraduate Studies (IKYK)** *2021-2025*
  Cyprus State Scholarship Foundation
- **Achieved 1st place in Cyprus-wide Pancyprian Examinations (Computer Engineering, UCY)** *July 2020*
  Pancyprian Examinations 2020

Professional Memberships

- **IEEE - Institute of Electrical and Electronics Engineers** *August 2024 - Present*
- **IET - Institution of Engineering and Technology** *October 2022 - Present*

Certifications

- **CS50x Introduction to Computer Science:** View Certification *December 2022*
- **CCNA R&S: Routing and Switching Essentials** *May 2020*
- **CCNA R&S: Introduction to Networks** *May 2019*

Additional Information

Hobbies & Interests: Exploring computer hardware, learning about emerging technologies and fitness training.
Languages: English (proficient), Greek (native)