Alexandros Angelakis

PERSONAL DETAILS

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Links	GitHub, LinkedIn, Homepage

EDUCATION

MSc. in Computer Science and Engineering `Feb. 2024 - Present`
University of Crete (UoC)
GPA: 9.63/10.00 (ongoing)
Areas: Artificial Intelligence and Machine Learning - Signal Processing and Analysis

BSc. in Computer Science `Sept. 2019 - June 2023`
University of Crete (UoC)
GPA: 8.77/10.00 (Excellent)
Thesis: "Optimal Sensor Placement in Water Distribution Networks using graph traversal algorithms"

EXPERIENCE

Graduate Research Fellow `Feb. 2024 - Present`
Conducting research at the Institute of Applied Computational Mathematics (IACM) of FORTH with Yannis Pantazis. Since June 2024, my role has been supported by Apple Inc. through IACM, on the work based on "Implementation and Assessment of Probabilistic Divergence Estimation Algorithms with Applications in Disentangled Learning". I am focused on developing NeuroDiME, a library for neural-based estimation of divergences and metrics.

Graduate Teaching Assistant (TA) `2024-2025`

- *TA position for the undergraduate elective course CS370 - Digital Signal Processing, taught by professor Dr. George Kafentzis (Fall Semester 2024).*

- *TA position for the undergraduate core course CS215 - Applied Mathematics for Engineers, taught by professor Yannis Stylianou and Dr. George Kafentzis (Spring Semester 2024).*

Undergraduate Research Fellow `Mar. 2023 - Aug. 2023`
Undergraduate Research Fellow at the Institute of Applied Computational Mathematics (IACM) of FORTH, supervised by Yannis Pantazis. I contributed in building NeuroDiME: A Software Library on Neural-based Estimation of Divergences and Metrics.

Undergraduate Intern `July 2022 - Sep. 2022`
Intern at the Institute of Applied Computational Mathematics (IACM) of FORTH, supervised by Yannis Pantazis. Developed algorithms that find solutions to the Optimal Sensor Placement for the Detection and Localization of leakages in Water Distribution Networks (WDNs), using graph traversal algorithms such as Breadth-First Search (BFS).

AWARDS

Undergraduate Scholarship `Sep. 2020,21`
Awarded for academic excellence throughout undergraduate studies and final High School Exams issued by Greek State Scholarships Foundation (IKY).

"Chrysanthos and Anastasia Karidis" Scholarship `July 2021`
Awarded to the students that excelled in their final High School exams.

SKILLS

Programming	🐍 Python, C, ☕ Java
Frameworks	📊 Scikit-Learn, 🐼 Pandas, 🌊 Seaborn, 📈 Matplotlib, 🔢 NumPy
DL Frameworks	🔥 PyTorch, 🌊 TensorFlow, 🧮 JAX
Languages	English (Proficient), Greek (Native)
Soft Skills	Time Management, Teamwork, Problem-Solving, Communication

SELECTED PROJECTS

Digital Speech Processing `2023`

Developed VUS Discrimination, Pitch Estimation, LPC Synthesis, and Speaker Identification in Matlab for the Digital Speech Signal Processing course, taught by Professor Yannis Stylianou.

AlphaCompiler/AlphaVM `2022`

A complete compiler and virtual machine for the Alpha Programming Language (a JavaScript-like language), developed in C (both the compiler and the VM), using Lex and Yacc/Bison, for the Languages and Compilers course, taught by Professor Antonios Savides.

VOLUNTEER EXPERIENCE

Presenter `Feb. 2024`

I helped conduct my department's presentation and outreach events to high school students at the department's facilities.

Peer Mentor `2022-23`

I participated in the STEER Student Peer Mentor program in the Computer Science department at the University of Crete, where I served as a mentor to Computer Science freshmen.

Undergraduate Teaching Assistant (TA) `2022-2023`

- *TA position for the undergraduate core course CS215 - Applied Mathematics for Engineers, taught by professor Yannis Stylianou and Dr. George Kafentzis (Spring Semester 2023).*

- *TA position for the undergraduate core course CS217 - Probability, taught by professor Panagiotis Tsakalides (Fall Semester 2022).*

- *TA position for the undergraduate elective course CS351 - Information System Analysis and Design, taught by Vasilis Efthymiou (Spring Semester 2022).*