Michalis Grigorakis

Software Engineer (Full-Stack) | Machine Learning

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LinkedIn | GitHub

Experience

Stratakis Laser Laboratory, IESL–FORTH — Heraklion, Greece
Research Assistant — *Mar 2025 – Sep 2025*

- Contributed to the EU-funded project HORIZON-WIDERA-2021 — DYNASTY (DYNAmics and Structural Analysis of 2D Materials).
- Designed and executed experimental pipelines combining Arduino-based hardware with Python for data acquisition, processing, and analysis.
- Applied machine learning techniques to experimental datasets, supporting evaluation and interpretation of results.
- Collaborated in a multidisciplinary research environment following reproducible experimentation and structured documentation practices.

INTERMEDIA A.E.T.E. — Heraklion, Greece
Software Engineering Intern — *Jul 2024 – Sep 2024*

- Developed data ingestion and processing workflows using live REST APIs.
- Implemented backend services and automation tasks using Node.js, PHP, and PowerShell.
- Containerized services and development environments using Docker.
- Used Git for version control and collaborative development in a team setting.
- Authored structured technical documentation using Markdown.

University of Crete — Heraklion, Greece
Teaching Assistant — Data Structures — *Sep 2025 – Present*

- Assisted with labs, grading, and student support for undergraduate Data Structures.

Education

University of Crete — Heraklion, Greece
MSc in Computer Science — *Sep 2025 – Present*

University of Crete — Heraklion, Greece
BSc in Computer Science — *2019 – 2025*

Skills

Programming:	Python, C, C++, PHP, PowerShell
Frameworks:	Node.js, Express, React, PyTorch, NumPy, Pandas, Scikit-learn
Tools & Platforms:	Git, Docker, Linux, Windows, Arduino, Markdown, Grafana, AWS
Databases:	SQL, InfluxDB
Machine Learning:	Data processing, model training, evaluation
Languages:	Greek (Native), English (C2 Proficiency)

Selected Projects

AlphaCompiler
Compiler and Virtual Machine — *C, Lex/Flex, Yacc/Bison*

Designed and implemented a complete compiler and virtual machine for the Alpha programming language (JavaScript-inspired syntax). The project covered lexical analysis, parsing, intermediate code generation, and execution semantics, with an emphasis on correctness, modular design, and low-level system behavior.

Resource Central: Workload Prediction Using Telemetry Data
Cloud Computing and Machine Learning (MSc Coursework)

Implemented a simplified version of Resource Central to predict p95 CPU utilization using telemetry data. Generated and processed CPU, memory, and lifetime metrics, trained a Random Forest model for workload prediction, and deployed predictions through a REST API using Flask in an AWS-based environment.