Arsenios Hadjikyriacou Full-Stack Software Developer

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 arsenioshadjikyriacou.com   github.com/ArseniosHadjikyriacou   linkedin.com/in/arsenios-hadjikyriacou

Profile

Full-stack developer with a strong analytical background in physics. Experienced in building and deploying production-grade web applications using React, Python, Java and PostgreSQL. Combines rigorous scientific methodology with modern software development practices to deliver scalable, maintainable solutions.

Technical Skills

Frontend: React, TypeScript, Next.js, Tailwind CSS

Backend: Python, FastAPI, Java, Spring Boot, RESTful APIs, JWT Authentication

Databases: PostgreSQL, MongoDB

DevOps & Tools: Docker, Podman, Git, Linux, Shell Scripting, CI/CD

Other: NumPy, Pandas, Matplotlib, Langchain, LaTeX, Ollama, Agile Methodologies

Work Experience

Full-Stack Web Developer   Mar 2025 – Present
DeltaSoft Solutions   Larnaca, Cyprus

- Develop and maintain AI-driven financial reporting web application used by major financial institutions
- Build responsive frontend interfaces with React and TypeScript
- Design and implement RESTful APIs using Python FastAPI with JWT authentication
- Manage PostgreSQL databases and containerized deployments with Podman
- Create comprehensive technical documentation and training materials
- Design and deliver technical training courses (Apache Tomcat, MongoDB) for enterprise clients

Digital Transformation Intern   Dec 2024 – Mar 2025
The Cyprus Institute   Nicosia, Cyprus

- Contributed to the DiGiNN Project implementing digital transformation pilot projects
- Conducted consultations with partner organizations to assess IT infrastructure needs
- Provided technical recommendations for modernizing legacy systems

Research Scientist   Oct 2022 – Oct 2024
ELI-Beamlines Research Centre   Prague, Czech Republic

- Developed and executed complex simulations on HPC clusters using particle-in-cell methods
- Processed and analyzed large experimental datasets using Python scientific stack
- Collaborated in international research team on laser-driven ion acceleration experiments
- Co-authored peer-reviewed publication in Plasma Physics and Controlled Fusion

Projects

Chess Web Application

- Full-stack chess game built with React featuring real-time gameplay and move validation

Full-Stack Application

- Full-stack fintech dashboard using React, Spring Boot, and PostgreSQL. Containerized using Podman.

EOAL Data Analysis Dashboard

- Interactive data visualization dashboard using React for exploring and analyzing scientific datasets

Sales Analytics CLI Application

- Java command-line application for processing sales data with reporting and analytics features

LLM Chatbots & RAG Pipelines

- Experience building conversational AI systems with retrieval-augmented generation using Ollama

Education

MSc Laser Physics and Technology   2020 – 2022
Czech Technical University in Prague   Prague, Czech Republic

  Thesis: *Laser-Driven Ion Acceleration: Analysis and Theoretical Interpretation of Experimental Data*

BSc Physics   2017 – 2020
Durham University   Durham, United Kingdom

Certifications

✔ **HTML, CSS, JavaScript, Git, Linux and Shell Scripting**   Coursera, Jul 2025

✔ **OOP in Java, Intro to AI, Microservices, Containers, DevOps and Agile** Coursera, Aug 2025

Achievements

Hadjikyriacou, A., et al. "Novel approach to TNSA enhancement using multi-layered targets—a numerical study." *Plasma Physics and Controlled Fusion* 65.8 (2023). DOI: 10.1088/1361-6587/acdc51

🏆 First Poster Prize, ELI Summer School 2021

🏆 3rd Place, Cyprus Chess Championship 2017

🏆 National Physics Olympiad 2015 (9th Place)

Languages

Greek (Native) | English (Fluent)