Fotis Branikas

fotis.branikas@gmail.com | +30 695 602 2102 | fbranikas.com | github.com/fbranik | Athens, Greece

Profile Summary

Software Engineer with experience in high-performance computing, full stack development and data analysis. Demonstrated ability to build and optimize the performance of software systems, and deliver data-driven software tools for complex, low latency computational environments. Looking to apply and further cultivate creative problem-solving skills through hard work, rationalism.

Skills

- **Programming languages**: C++, C, Python, Bash, Matlab, SQL, HTML, CSS, Typescript, Javascript, Java.
- **Data Analysis and Visualization Libraries**: NumPy, SciPy, Pandas, scikit-learn, Tensorflow, Matplotlib, Plotly, Dash.
- **Tools**: Git, Github CI/CD, Docker, GNU Debugger, Jira, Jupyter, slurm, reframe, neovim, PyQt UI development.
- **Other Competencies**: Linux administration and Kernel module development, knowledge of network protocols, monitoring and programming (low-level socket programming and with REST APIs), concurrent and parallel programming understanding of cryptography and software security concepts
- **Languages**: Greek (native), English (Cambridge University Certificate of Proficiency C2), German (OSD Zertifikat B2)

Education

MEng Electrical and Computer Engineering *National Technical University of Athens*   Oct 2017 - June 2024

- **Overall Grade**: 7.5/10, **Thesis Grade**: 10/10.
- **Thesis**: Performance Analysis and Modeling of Parallel Applications in Distributed Memory Architectures.
- **Relevant Coursework**: Computer Architecture, Data Structures and Algorithms, Operating Systems, Distributed Systems, Parallel Processing, Computer Networks, Neural Networks, Probability Theory and Statistics, Linear Algebra, Discrete Mathematics.

Mandatory Greek Military Training and Service   Nov. 2019 - Nov. 2020

Experience

ICCS NTUA, Research Engineer - Athens, Greece   Sep. 2024 - present

- Currently working as a Research Engineer focused on performance, scalability, communication and programmability of HPC systems. This is achieved through the development and deployment of custom low-level and parallel C++ benchmarking and profiling tools executed on top-performing systems of the Top500 list.
- Providing support for the efficient and error-free execution of scientific models. This is done by building scalable software pipelines and conducting data-driven analyses to assimilate and accommodate software in the available infrastructure.
- Also compiled a set of assignments for a Master's level course on Parallel Computing. This was focused around parallelizing the training and inference of a Neural Network (using CUDA, MPI and Python Multiprocessing).

Tesla Motors, Software Engineering Internship - Athens, Greece   March 2022 - July 2022

- Completed an internship role within Tesla's Motor R&D Department, where I contributed in the maintenance of a distributed computing electrical motor simulation system written in MATLAB and executed on hundreds of machines.
- Designed and Implemented a CI/CD testing suite for the main production codebase using GitHub Actions and MATLAB UI testing, ultimately leading to a more efficient and error-free software development process.

Kallipos Academic Ebooks, Software Engineer (Part Time) - Athens, Greece   July 2021 - Sep. 2024

- Undertook a project regarding the development of a streamlined process for generating versatile e-books for Kallipos, one of the biggest open-access ebook repositories in Europe with over 1200 published books.
- Developed the styling for HTML and PDF output formats of XML based books using CSS, XSLT stylesheet languages
- Collaborated with non-technical staff to implement a custom user-friendly software suite for document conversions, previews and styling. This included automation tools and UIs using Python and styling for HTML and PDFs CSS, XSLT.

Hilon Informatics, Frontend Engineer (Fixed Contract) - Athens, Greece   Oct. 2023 - Jan. 2024

- Developed a CRUD Frontend using Angular. This was used as the student course dashboard of the National Technical University of Athens.

Achievements & Recognition

First EULiST Student Conference, EULiST (eulist.university) - TUW, Vienna, Austria   July 2024

Attended the conference as a speaker to present the software project developed with Kallipos Academic Ebooks.