Fotios Alexandridis

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Education

University of Zurich — Zurich, Switzerland
PhD in Computer Science and Empirical Software Engineering — *Sept. 2025 – Sept 2029*

Aristotle University of Thessaloniki — Thessaloniki, Greece
MEng in Electrical and Computer Engineering, graduaded with honors, grade 8.75/10 — *Oct. 2019 – April 2025*

Panhellenic Exams — Greece
Scored 19003 out of 20000 points — *June 2019*

Experience

PhD Student @ ZEST — Sep. 2025 – Sept. 2029
UZH — *Zurich, Switzerland*
- Doing research on Empirical Software Engineering.

Software Engineering Intern — Sep. 2023 – Feb 2024
Tesla — *Athens, Greece*
- Worked in developing and upscaling (3-20x) in house tools in MATLAB for large scale design of powertrain parts.
- Was part of a fast paced environment, collaborated with US, India and China timezones.

Autonomous System Engineer — July 2021 – August 2022
Aristotle University Racing Team Electric & Driverless — *Thessaloniki, Greece*
- Worked on internal mapping systems for an autonomous electrical racecar, plus onboard linux system, hardware sensor setup & wiring and simulations.
- Competed in 3 competitions in summer 2022: FSAta, FSAustria, FSEast.

Autonomous EV Scrutineer — Aug 2023 – Aug 2023
Formula Student East — *Hungaroring, Hungary*
- Performed safety checks on Formula Student racecars.
- Worked with low & high voltage electrical systems, and autonomous systems.

Lead Backend Developer — Nov. 2021 – Nov. 2022
CoolSchool — *Thessaloniki, Greece*
- Lead backend/reliability engineer, software architect on NodeJS backend CMS developed from scratch.
- Co-developer of React Native Android (7th trending on Greek Educational Google PlayStore) and iOS mobile App.

Projects

Autonomous Racecar State Estimation | *C++, ROS2, Python, Matlab, Control Systems* Sep. 2021 – Mar. 2022
- Implemented real time robust ROS2 node for racecar state estimation, based on the Extended Kalman Filter.
- Created custom visualization and evaluation scripts to evaluate progress in past data and simulations.
- Contributed in vehicle top speed in unknown track navigation to go from $15km/h$ to $25km/h$.

Thesis Work | *Python, Image Processing, Machine Learning, CARLA Simulator* Apr. 2023 – Apr. 2023
- Titled "Design and development of a low cost end to end autonomous navigation system for consumer vehicles".
- Proposed a novel, low cost methodology to quickly iterate on end to end models for autonomous driving.
- End to end experimental simulator setup, from dataset gathering to model training to real time evaluation.

Distributed Crypto Oracle Microservices | *Python, AWS, Linux, Redis, Docker, Git* Sep. 2022 – Feb. 2023
- Total processing time $<$ 100ms shared across microservices, communicating via redis, 99% availability.

Technical Skills

Languages: Python, JavaScript, Typescript, C, C++, SQL, Rust, Go, Java, HTML/CSS, Dart, Swift, Bash, MATLAB
Frameworks: React, Node.js, Flask, Material-UI, FastAPI, Flutter, Express.JS, Next.JS, Mongoose, Hardhat, Fiber, React Native, SwiftUI
Developer Tools: Git, Docker, Kubernetes, Google Cloud Platform, Amazon Web Services (AWS), VS Code, Vim, Heroku, Digital Ocean, Vercel
Libraries: pandas, NumPy, matplotlib, PyTorch, Tensorflow, scikit-learn + numerous others