

Charatzoglou Michalis

Thessaloniki, Greece

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Personal Profile

Software Engineer with 3+ years of experience, bridging software engineering with data science. Experience in full-stack development, specializing in Python (Django/DRF, FastAPI), JavaScript (React/Next.js), and relational databases. With a B.Sc./M.Eng in Electrical and Computer Engineering and M.Sc. in Data and Web Science. Currently, I work at the Data and Web Science Lab where I handle full-stack development, DevOps (Docker, CI/CD), and MLOps. Also, i am a self-contractor for software companies and non software clients designing and customizing various production ready solutions. I am interested in AI Agents, building tools using Google Agent Development Kit. Outside work, I maintain a self-hosted cloud infrastructure on Hetzner for personal projects and self-hosted infrastructure using Cloudflare Tunnels. Fluent in English and Greek.

Education

Aristotle University of Thessaloniki

Thessaloniki, Greece

MSc in Data and Web Science - [DeepMind](#) scholarship - [GPA 9.15/10](#)

Oct 2022 - July 2024

- Evolved with Distributed Data Processing, Decentralized Technologies, Machine Learning, Social Network Analysis, Web Mining
- Thesis: Wattwise: AI driven predictive analytics and energy consumption monitoring

University of Genoa

Genoa, Italy

Deep Learning and Computer Vision Summer School - [Certificate](#)

Jun 2023

- Principles of deep architectures, computer vision algorithms and their strong connections.

University of Thessaly

Volos, Greece

Electrical and Computer Engineering Dept. Diploma – 5-year Joint Degree B.Sc./M.Eng - [GPA 7.66/10](#)

Sept 2016 - Apr 2022

- Evolved with Fundamentals and Applications of Computer Science, Software Engineering and Information System, Hardware and Computer Architecture, Signals, Telecommunication, Networks and Energy
- Thesis: Uth Groups: An all-in-one web application for academic collaboration

Work Experience

Data and Web Science Lab - Aristotle University of Thessaloniki

Thessaloniki, Greece

Software Engineer

Jan 2024 - Current

- Designed and implemented multiple backend microservices using Django REST Framework and FastAPI. Managed relational (PostgreSQL) and non-relational (MongoDB) databases. Containerized applications using Docker and deployed them in production via Jenkins CI/CD pipelines. Developed AI-powered services, including AI Agents (built with Google Agent Development Kit) and self-hosted wrappers to avoid dependency on Google Cloud (e.g., Vertex AI). Orchestrated forecasting models using RabbitMQ as a message broker to connect backend services with ML models.
- Built responsive frontends using React, Next.js, Tailwind CSS, and ShadCN. Implemented OAuth-based authentication and managed SPA architecture with optimized data handling (caching via React Query, local storage). Developed complex data visualizations using React-Google-Charts, D3.js, and Leaflet for GeoJSON map rendering.
- Supervisor in B.Sc. thesis that involve software development and system design.
- Projects Involved:
 - [TrineFlex](#) – Distributed Energy Storage Management Platform
 - [MasterMine](#) – Data-driven platform for mining
 - [WattWise](#) – AI-Powered Energy Forecasting and Analytics
 - [QLife](#) – Transforms raw statistics on mining across Europe into a user-friendly experience
 - [SciSpec](#) – EU Scientific publications data analytics
 - [Patentinno](#) – Analyzes patents related to energy innovation
- Currently leading development for BiasHawk – an AI-powered risk assessment platform that evaluates AI systems' compliance with the EU AI Act.

Contract - Ysoft

Thessaloniki, Greece

Software Engineer / AI Engineer and Consultant

Apr 2025 - Current

- Design and implementation of an AI Agent chatbot for Drive, client of Ysoft, to automate client reservations and retrieve availability.
- Designed and implemented the AI Agent using Google Agent Development Kit and OpenAI gpt-4.1 LLM model, consuming Drive's API for reservation and availability management.
- Use FastAPI for managing user sessions in production, for a robust and scalable backend for the agent.

Contract - School of Theology Aristotle University of Thessaloniki

Thessaloniki, Greece

Software Engineer / Product Management

Dec 2024 - July 2025

- Led the design and implementation of Digitmanus, a digital repository for digitized manuscripts from multiple holy monasteries in Greece, designing a modular framework for cultural heritage preservation.
- Designed and implemented the repository backend using Django REST Framework and the frontend with React and ShadCN for UI and Minio S3 for efficient storage of digitalized images. Managed and maintained the repositories on Aristotle University of Thessaloniki's VPS infrastructure, managing server operations using Coolify.
- Maintain the repositories with daily traffic of 500-1k visitors, using Prometheus and Grafana for monitoring. The repositories include [Holy Monastery of Leimonos Digital Manuscripts](#) and [Holy Monastery of Xenias Digital Manuscripts](#).

Contract - Indeex.ai

Volos, Greece

MLOps Engineer and Consultant

Aug 2024 - Jan 2025

- Worked as MLOps engineer to set up a machine learning pipeline for data analysis and forecasting for brewery companies.
- Implemented data ingestion and processing using Google Pub/Sub to handle massive data input from sensors.
- Using multiple Python data analysis frameworks, including scikit-learn, self-hosted LLM models (Llama3b) using Ollama and classification models and for classifying sensor data and forecasting future beer ingredient demand.

Saphetor	Lausanne, Switzerland
Python Developer	June 2021 - Jan 2022
<ul style="list-style-type: none"> As a Backend Developer on the Varsome bioinformatics platform, I designed and maintained scalable backend services for processing and annotating Next-Generation Sequencing (NGS) data using the Django framework, optimized MariaDB databases for efficient genomic data handling, and contributed to RESTful APIs supporting variant analysis. Working in an Agile environment, I collaborated with cross-functional teams, managed tasks via Jira, and maintained version control using GitHub. 	
SKG Code	Thessaloniki, Greece
Software Engineer	Apr 2021 - Jun 2021
<ul style="list-style-type: none"> Worked as a volunteer software engineer on a team project to develop a system for tracking vaccinations using Blockchain technology. Utilized Bigchain DB as the database and Django for the web development of the application SKG Code soft skills evaluation report 	

Skills	
Programming	Python (web and AI), Django & DRF, Javascript/Typescript (React, Next.js), SQL/NoSQL (PostgreSQL, MySQL, SQLite, MongoDB, Redis), Google ADK, HTML/CSS (Tailwind CSS, JSX, Jinja)
Miscellaneous	DevOps/MLOps,CI/CD(Git flow, Docker, Jenkins), self-hosted setups, sys-admin operations, NGINX, Traffik, VPS Management, Hetzner, Cloudflare, Coolify, Minio S3,Google Cloud (Pub/Sub, Buckets), Agile Development(Jira), PaaS(Heroku/Render), BaaS(Supabase), AWS(RDS,S3)
Languages	Greek - Native proficiency, English - Professional proficiency

Honors and Awards		
2023	DeepMind Scholarship , As part of my M.Sc. course, I receive a scholarship from DeepMind. The scholarship includes weekly meetings with a mentor from DeepMind, where we conduct code reviews, discuss papers, and more.	Thessaloniki, Greece
2023	Confluence Excellence Award , Winner of the 1st award of Confluence Challenge. With exanta , spin-off of AUTH we developed a forecasting tool for Alumil to develop a solution for advanced sales forecasting	Thessaloniki, Greece
2024	IFS 2024 Innovation Recognition Award , with exanta we designed EcoGazer a solution based on my MSc thesis Wattwise: AI driven predictive analytics and energy consumption monitoring which tackles the challenge posed by Siemens SA to develop a mobile tenant app to improve energy efficiency.	Thessaloniki, Greece