Anastasia Zervas

SOFTWARE ENGINEER | BACKEND & FULL-STACK | CLOUD & DEVOPS | AI SYSTEMS

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PROFILE

Informatics and Telematics graduate who builds AI applications and full-stack systems, from retrieval and LLM workflows to APIs, authentication, containers, CI/CD and cloud deployment. Works daily with AI coding agents in an agentic development workflow: decomposing work into reviewable steps, giving precise context and reviewing every output critically. Experience spans AI agents, distributed systems and secure public-sector services.

EDUCATION

Igor Sikorsky Kyiv Polytechnic Institute — Kyiv, Ukraine | 2021 – 2022
Undergraduate studies; continued at Harokopio University of Athens.

Harokopio University of Athens — Kallithea, Greece | 2022 – 2026
B.Sc. in Informatics and Telematics | Degree average: **7.46/10** | Thesis grade: **10/10**
Collaborative thesis: permissioned blockchain network and application for public subsidy administration.
Relevant coursework: Distributed Systems, Databases, Computer Networks, Operating Systems, Cybersecurity, Cloud Computing, DevOps, Artificial Intelligence, Parallel Computing.

SELECTED TECHNICAL PROJECTS

OPEKEPE-HLF | Blockchain Subsidy Platform — 2025 – 2026

A permissioned blockchain platform keeping a tamper-evident, auditable record of agricultural subsidies across public bodies.

- Designed and built a Hyperledger Fabric consortium with SmartBFT for registration, entitlements, applications, verification, and payment.
- Deployed with Docker Compose across six physical machines connected through WireGuard, with an Oracle Cloud node as the public-facing gateway, Prometheus and Grafana monitoring, and a custom Go benchmarking tool.
- Implemented three Go chaincodes with private data collections for personal-data protection and CouchDB state, event-driven mTLS/gRPC connectors, PostgreSQL registries, a private IPFS network, and React/TypeScript portals using Keycloak and Taxisnet OAuth.

ErgoHub | Full-Stack Freelance Marketplace — 2025 – 2026

A web marketplace where clients post IT projects and freelancers apply for them.

- Built a React/Redux, Spring Boot (Java), and PostgreSQL application with Admin, Client, and Freelancer roles, JWT-based access control, project applications, e-mail notifications, and MinIO document storage.
- Automated build, test (JUnit, Jest), and deployment workflows using Docker, Kubernetes, Jenkins, Ansible, and Azure Kubernetes Service.

TradingAgent | Crypto Decision-Support System — 2026 – present

An AI agent, built around its own decision model, that analyses the crypto market and social media and recommends whether to buy, sell or stay out.

- A custom model trained for this task produces calibrated probabilistic return forecasts across multiple assets and timeframes, using gradient boosting, Transformers and self-supervised pretraining. An in-house LLM workflow (retrieval, structured extraction, sentiment scoring) turns news and social media into trading signals.
- A separate decision layer chooses direction (long, short or flat), instrument (spot or perpetual futures) and risk-adjusted position size, and abstains when confidence is low. It is tested against overfitting and paper-traded on live market data with simulated execution.
- Developed in an agentic workflow: AI coding agents with task-specific skills, an independent reviewer agent, guardrails and ADRs.

SocialMediaAgent | NLP Search & Analysis — 2026

A search and analysis tool that retrieves tweets on a topic and summarises the emotions and themes in them.

- Built a Python pipeline combining hybrid retrieval (BM25 and FAISS/MiniLM vector search), multi-label emotion classification, K-Means topic clustering with UMAP, and extractive and DistilBART summarization on SemEval-2018 tweets.
- Exposed the analysis through a FastAPI dashboard (ECharts), integrating scikit-learn Logistic Regression and Linear SVM with Twitter-RoBERTa.

EV Charging Stations | Station Data & Availability Backend — 2025

A backend service that collects electric-vehicle charging station data and tracks connector availability over time.

- Built a FastAPI and MongoDB backend ingesting TomTom API data, with Celery and Redis workers for batch updates, availability polling and clean-up.

OpenStack Cloud Lab — 2026

A private cloud administered end to end as a cloud operator, from identity and networking to a running application.

- Deployed DevStack on a GCP VM, configured projects, quotas, networks and security groups, and provisioned a two-tier Flask and PostgreSQL application.

Computer Vision Pipeline — 2025 – 2026

A set of image models covering the main computer vision tasks, trained on CIFAR-10, Oxford-IIIT Pet, SBD, and Pascal VOC 2007.

- Trained classification, transfer-learning, segmentation, and object-detection models in PyTorch (CNNs, ResNet, U-Net, Faster R-CNN, ViT).

WORK EXPERIENCE

Mathematics Tutor

- Explained mathematics to children step by step, adapting each explanation to the student and building structured problem-solving habits.

TECHNICAL SKILLS

Programming: Python, Go, Java, C, JavaScript, TypeScript, SQL, Bash
Backend & security: Spring Boot, FastAPI, Flask, Celery, REST APIs, gRPC, mTLS, JWT, OAuth/OIDC, Keycloak
Web & data: React, Redux, PostgreSQL, MongoDB, CouchDB, Redis, MinIO, Nginx
Cloud & infrastructure: Linux, Docker, Kubernetes, Jenkins, Ansible, WireGuard, OpenStack, GCP, Azure; observability (Prometheus, Grafana)
Blockchain: Hyperledger Fabric, smart contracts (Go chaincode), private data collections, event-driven integration, IPFS
AI & ML: LLM agents, tool calling, RAG, vector search, hybrid retrieval; PyTorch, Hugging Face Transformers, scikit-learn; NLP, computer vision
AI engineering: AI coding agents and agentic workflows; prompt and context engineering; agent guardrails and human review; evaluation-driven development

PROFESSIONAL SKILLS & LANGUAGES

Engineering: End-to-end project delivery; software design; back-end and full-stack development; test automation; code review; documentation.
DevOps & cloud: CI/CD; infrastructure as code; infrastructure deployment; cloud administration; monitoring and observability; troubleshooting.
Data & ML: Data preprocessing and pipelines; experiment design; model training and evaluation; performance testing.
Working style: Ownership; structured problem-solving; analytical thinking; attention to detail; security awareness; teamwork; mentoring; acting on feedback.
Communication: Explaining technical trade-offs to non-technical stakeholders; turning loosely defined needs into concrete, shippable tasks.
Languages: Ukrainian (native), Greek (native), Russian (native); English (B2 – Cambridge English: First (FCE), 2021).