Andreas Sendros

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Professional Experience

Safe Swiss Cloud .... May 2024 – Present
Systems Engineer & AI Solution Developer .... *Zurich, Switzerland (remote)*

– Architected, deployed, and maintained customer infrastructure using **OpenStack** and **VMware vCloud/vSphere**.

– Deployed and managed **OKD/OpenShift** and **Kubernetes Gardener** clusters for enterprise environments.

– Administered full-stack environments across **Linux** and **Windows** systems.

– Managed networking and firewall infrastructure with **FortiGate** and **pfSense**.

– Designed and deployed an observability stack with **Grafana**, **Prometheus**, and diverse exporters (including **Alloy**), with centralized log management via **Loki + S3 storage**.

– Configured and maintained **Nginx** and **Apache** web servers.

– Deployed and maintained customer **SaaS solutions** such as **Nextcloud**, **Comet Backup**, **Plesk**, and **GitLab**.

– Developed and operated **RAG systems** using **LangChain** and **ChromaDB**, and deployed frameworks including **Kotaemon**, **RagFlow**, **LibreChat**, and **OpenWebUI**.

– Deployed and optimized AI orchestration and serving layers: orchestration (**Ray.io**, **SkyPilot**), observability (**LangFuse**), serving (**LiteLLM**), and model execution (**Ollama**, **Hugging Face**).

– Developed and integrated **MCP (Model Context Protocol)** components to extend **agentic AI systems**, enabling contextual reasoning and automation in DevOps pipelines.

– Implemented automated workflows and pipelines using **n8n**.

– Provided technical support and pre-sales consultation to enterprise clients.

Athena Research Center .... Nov 2020 – Mar 2025
Research Associate .... *Xanthi, Greece*

– Led blockchain research and technical implementation in multiple EU-funded projects (**FLORA**, **SUSSANA**, **TERMINET**, **Agro4+**).

– Developed a **Blockchain Automation Framework (BAF)** for **Hyperledger Fabric**, enabling automated deployment, channel management, and smart contract lifecycle automation.

– Deployed and maintained **private Ethereum** and **IPFS networks** for research pilots.

– Implemented **smart contracts** in Solidity and JavaScript for data validation, IoT integration, and Ricardian contract automation.

– Managed DevOps operations including Docker-based environments, monitoring stacks (**Prometheus**, **Grafana**, **Loki**), API infrastructure, and CI/CD pipelines.

– Contributed to **proposal writing** and project coordination for **FLORA** and **SUSSANA**.

Private Tutor .... 2019 – 2024
.... *Xanthi, Greece*

– Taught computer science and programming courses including Computer Networks, Algorithms and Data Structures, Databases, C, C++, Python, Go, Fortran, and Cybersecurity.

Agricultural University of Athens .... Feb 2019 – Jun 2019, Jan 2024 – Apr 2024
Software Engineer .... *Athens, Greece*

– Developed a decentralized food tracking and traceability application on **Ethereum**, focusing on performance optimization and cost efficiency in smart contract execution.

inSpot S.A. .... 2017 – 2019
Technical Support .... *Xanthi, Greece*

– Maintained local network infrastructure and ensured connectivity stability.

– Provided technical support for client PCs, and troubleshooting.

Raycap S.A. (Internship) — Jun 2015 – Aug 2015
Software Developer Intern — *Drama, Greece*
− Designed and implemented a **MySQL-based employee training database** with a user-friendly interface.

− Provided periodic maintenance and updates over two years.

Education

Democritus University of Thrace 2020 – Present
Ph.D. in Electrical and Computer Engineering *Defense pending Q1 2026*
Thesis: **Efficient computation execution and data management in blockchain infrastructures**.

Research focused on **efficient data storage and retrieval** in blockchain systems, including **token performance**, **Bloom filter−based log search in Ethereum**, and distributed storage via **IPFS** and **Swarm**.

Teaching Assistant: Algorithms and Data Structures (Java), Algorithms and Complexity (Python), Cryptography (Java), and Computer Networks (NS3).

Deployed and maintained laboratory services such as **Moodle**, **Nextcloud**, **Overleaf**, and **OpenProject** with load balancing and **LDAP authentication** for 1,000+ users; also developed the lab's **Jekyll-based website**.

Democritus University of Thrace 2011 – 2020
Integrated Master's (MEng) in Electrical and Computer Engineering
Thesis: Application of blockchain technology in food safety.

Received honorable distinction for contributions to the department.

Technical Skills

- **Programming Languages:** Python, Java, JavaScript, C, C++, Go (basic), Solidity

- **Cloud & Virtualization:** OpenStack, VMware vCloud/vSphere, OKD/OpenShift, Kubernetes Gardener, S3 storage

- **Infrastructure & DevOps:** Docker, CI/CD, Prometheus, Grafana, Loki, Alloy, TLS/SSL automation

- **Networking & Security:** Linux (system administration, automation), FortiGate, pfSense, TCP/IP, VPNs, firewall configuration

- **Web Servers & SaaS:** Nginx, Apache, Nextcloud, Comet Backup, Plesk, GitLab

- **AI & Automation:** LangChain, ChromaDB, Ollama, Hugging Face, LiteLLM, LangFuse, Ray, SkyPilot, n8n, OpenWebUI, LibreChat, Kotaemon, RagFlow, MCP integrations

- **Blockchain & Smart Contracts:** Hyperledger Fabric, Blockchain Automation Framework (BAF), Ethereum (Solidity, Chaincode), Ricardian Contracts, IPFS

Volunteering & Leadership

IEEE Student Branch, Democritus University of Thrace 2017 – 2018
Vice President - Financial Activities *Xanthi, Greece*
Managed financial operations, sponsorships, and logistics for student technical events and IEEE initiatives.

Panhellenic Students' Conference of Electrical and Computer Engineering (ECESCON) 2016 – 2017
Head Organizer *Xanthi, Greece*
Led a 25-member organizing committee and coordinated workshops, academic sessions, and industry outreach for over 1,500 participants.

Languages

Greek (Native), English (Fluent)