

Andreas Lampropoulos

Data Engineer & Data Scientist · PhD Candidate

Designing scalable data architectures and enabling intelligent, self-optimizing systems through advanced analytics, LLMs and reinforcement learning — bridging engineering with business.

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Profile

Data Engineer and Researcher building scalable data architectures and intelligent, self-optimizing systems. I sit at the intersection of large-scale data engineering and applied AI research — currently advancing Agentic AI that couples LLMs with Reinforcement Learning to make autonomous, data-centric infrastructure decisions. Proven ability to build strong relationships, mediate Engineering with Business, and lead teams managing complex data in international environments.

Experience

Doctoral Researcher

Jun 2025 – Present

BALab — Athens University of Economics and Business

- › Architecting multi-layer Dynamic Resource Allocation (DRA) — anomaly-driven, autonomous scaling of Spark / big-data workloads inferred from live system & JVM telemetry.
- › Pioneering LLMs + Reinforcement Learning to interpret application logs and drive agentic, data-centric resource decisions across cloud and physical environments.
- › Rigorous experimental ML-systems research — baselines, ablations, reproducible replications, and information-theoretic analysis of system behaviour.

Lead Data Engineer & Data Scientist

Nov 2020 – Present

Commsquare

- › Lead two teams of software engineers and data scientists.
- › Investigate, customize and deploy machine-learning and deep-learning models (Theta, LSTMs, etc.).
- › Time-series analysis of network data.
- › Build anomaly-detection and fraud-detection pipelines.

Analytics Software Engineer

May 2018 – Nov 2020

Commsquare

- › Solved complex telecom problems with modular, reusable, efficient and scalable code.
- › Implemented, customized, deployed and maintained Spark applications on physical-server clusters.
- › Documented software design and functionality.
- › Client installations and DevOps; agile methodologies, OOP and test-driven development.

Statistician — Internship

Apr – Jul 2016

Hellenic Statistical Authority · Synthesis of Accounts & Accounts with the Rest of the World

- › Produced descriptive statistics in the GDP area, extracted information from IMF documents, and performed data wrangling and cleansing.

Skills

› languages & frameworks

Python R Scala SQL JavaScript / TypeScript React Angular Bash Linux CLI

› big data & databases

Spark Kafka Hadoop / HDFS ClickHouse MySQL / MariaDB MS SQL Server MongoDB Redis

› cloud & devops

Docker Kubernetes AWS MS Azure Jenkins Zabbix Git Apache

› analytics, bi & tools

Power BI Tableau SAS IBM SPSS SAP Jira / Confluence Qt Designer

Education

PhD Candidate — Intelligent Data-Centric Dynamic Resource Allocation

Jun 2025 – Present

Athens University of Economics and Business

MSc in Business Analytics

2017 – 2019

Athens University of Economics and Business · 2 years, English program

Postgraduate Course — Probabilistic Graphical Models (MSc Statistics)

2018

Athens University of Economics and Business

BSc in Statistics & Actuarial Science

2013 – 2017

University of Piraeus

Languages

Greek

Native speaker

English

Full professional proficiency

German

Conversational

Ventures & Research

Co-Founder, CTO & Full-Stack Engineer — Avage

2021 – 2024

Insurance CRM · Innosuisse · Greece / Switzerland

Co-Founder, CTO & Data Scientist — Homitor

2018 – 2020

Proptech AI platform · egg incubator · Greece / Switzerland / Belgium

MSc Thesis — “AI in Root-Cause Call Classification from Mobile Network Auditing”

2019

Conducted at Commsquare

Co-author — “Ο Πληθυσμός της Ελλάδας υπό Διωγμόν”

2016 – 2018

Demographic study · ISBN 978-960-7941-14-5 · co-authored with Ira Emke-Poulopoulos (VP, Hellenic Society for Demographic Studies; New York Academy of Sciences member)

BSc Thesis — “Study of the asymptotic Cramér–Lundberg formula”

2015

University of Piraeus

Certifications & Seminars

Ethical Hacking

2020

ZSecurity

EuroPython 2019

Jul 2019

Basel, Switzerland · 1-week conference

Personal Data Protection (GDPR)

2018

Lex Artist / SODO