

./Andreas Lampropoulos

// Data Engineer & Data Scientist · PhD Candidate

$H(X) = -\sum_x p(x) \cdot \log p(x)$ // information-theoretic analysis of system behaviour

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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linkedin.com/in/andreas-lampropoulos | Greek

\$ whoami

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.

\$ tail -f experience.log

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.

\$ ls -la 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

\$ cat education.log

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

\$ locale

Greek

Native speaker

English

Full professional proficiency

German

Conversational

\$ cat ventures_and_research.log

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

\$ cat certs_and_seminars.log

Ethical Hacking

2020
ZSecurity

EuroPython 2019

Jul 2019
Basel, Switzerland · 1-week conference

Personal Data Protection (GDPR)

2018
Lex Artist / SODO