

NICK ANTONIOU

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EDUCATION

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

2023 – 2024

Master of Business Analytics, Operations Research Center (GPA: 4.8/5)

Cambridge, MA

- Research assistant at MIT's Operations Research Center (Prof. Nikos Trichakis): contributed to optimizing U.S. organ allocation by training and benchmarking survival models (Optimal Classification Trees, Random Forest, XGBoost)
- Scholarships: from the Bodossakis, Leventis, and Gerontelis foundations, Union of Greek Shipowners, and HelleniQ Energy
- Machine Learning project: prescriptive analytics for Fed's rate decisions, optimizing future macro-economic indicators
- Optimization Methods project: market basket cost minimization web-app, based on optimal nutritional content
- Clubs: Technology (Vice-President), AI/ML, Entertainment Media & Sports, First-Generation/Low-Income, Filmmakers'

ATHENS UNIVERSITY OF ECONOMICS AND BUSINESS

2016 – 2021

BSc in Management Science and Technology (GPA: 9.1/10; Top 4%)

Athens, Greece

- Concentration: Software Engineering and Data Science
- Co-authored and *published* "Data Virtual Machines: Simplifying Data Sharing, Exploration & Querying in Big Data Environments"; 2022 IEEE International Conference on Big Data; Osaka, Japan
- Thesis: analysis of data-driven advancements in the shipping industry; development of fuel consumption forecasting models
- Study Abroad: Erasmus+ at the Faculty of Engineering, University of Southern Denmark (Fall 2018)

EXPERIENCE

TAKEDA

02/2024 – 08/2024

Data Scientist Intern, MIT Capstone Project

Cambridge, MA

Conducted competitor intelligence on clinical trial protocols to reduce patient burden.

- *Halved* study teams' data preparation time by developing an ETL process that included schema matching of unstructured PDF tables, with *90% accuracy* (Redshift, Azure's Document Intelligence and OpenAI API)
- Deployed an interface of the ETL process, along with actionable visualizations for Takeda's executive leadership (Streamlit)

SATALIA

06/2022 – 06/2023

Data Scientist

Remotely (Athens, Greece)

- Refactored a large-scale workforce allocation optimization platform, predicting footfall and optimizing employee shifts for a major UK-based retailer; *70% reduction* in system downtime (AWS, Tensorflow, Docker, CI/CD)
- Built multi-modal annotation engine, predicting ad conversion rates (GPT-4 and Hugging Face-CLIP, BLIP, fine-tuned RoBERTa)
- Designed a prototype interface for Satalia's Content Intelligence platform using Explainable AI (counterfactuals, anchors), enabling intuitive stakeholder interaction; presented to WPP's CTO and secured a *\$400k funding increase*
- Developed a live-stream video and viewership scraper for YouTube and Twitch content, with a brand detector for video product placement (Selenium, OpenCV, YOLOv7, Google Vision)
- Established and led various initiatives, such as Satalia's D.S. Knowledge Sharing platform

ERNST & YOUNG (EY)

06/2021 – 06/2022

Data Engineer (promoted from intern, 2021)

Athens, Greece

- Led a 3-person team in the development of ETL processes for a major bank's data warehouse
- Developed ad-hoc & deployed SQL queries by communicating with cross-functional teams and banking stakeholders
- Optimized ERP data pipeline performance for major shipping client

HELLENIC NAVY

02/2020 – 02/2021

Seaman (12-month mandatory military service)

Greece

- Guided 20+ newer Navy recruits, facilitated computer operations

TECHNICAL SKILLS

ML & AI (Pandas, Numpy, Scikit-Learn, Keras, LLM, NLP, Hugging Face, Plotly, Streamlit), **Languages** (Python, R, Julia, Java), **Databases & Cloud** (SQL, No-SQL, Neo4j, Redshift, AWS, Azure), **Other technologies** (Git, Gurobi, Docker, CI/CD)