

# Panagiotis Valsamis

[LinkedIn](#) | [GitHub](#)

Location: Oberkorn, Luxembourg  
Email: [panagiotis.valsamis21@gmail.com](mailto:panagiotis.valsamis21@gmail.com)

## Summary

Mathematics graduate with interests in statistics, machine learning, and data science. During my bachelor studies I built a strong mathematical background and emphasized statistics and data science courses. I am passionate about solving problems through creative coding solutions and enjoy tackling complex optimizations. Currently studying a Master's in Data Science (enrolled in the third semester) achieving very good academic performance (**ranked 3rd out of 25 students**).

## Education

### Master of Science in Data Science

09/2024 – 08/2026

University of Luxembourg — Esch-sur-Alzette, Luxembourg

**GPA: 16.30/20**

- **Selected coursework:** Probability(17.0), Mathematical Statistics, High Dimensional Statistics, Statistical Learning(20.0), Time Series Analysis, NLP, Bayesian Statistics, Optimization, Data Visualization(18.2), Deep Learning, Big Data, Machine Learning(18.0).

### Bachelor in Mathematics

09/2018 – 07/2023

Aristotle University — Thessaloniki, Greece

**GPA: 6.93/10**

## Personal Projects

### Stock Prediction

Time Series Forecasting, Python, ARIMAX

[Source Code](#)

- **Developed a systematic NVDA trading strategy** using walk-forward ARIMA modeling that generated **131% total returns vs. QQQ's 54%**, achieving **2.4x market outperformance** over 2020-2025 with a 0.71 Sharpe ratio.
- **Engineered production-ready framework** with automated rolling retraining (1/5/20-day horizons), feature engineering (MACD lags, volume z-scores, market return signals), and hyperparameter optimization across ARIMA parameters and scalars.
- **Implemented comprehensive risk management** by converting predictions to positions with transaction costs, evaluating performance from annualized Sharpe ratios, max drawdown analysis, and rolling diagnostics.

### Electrocardiogram Classification

Python, TensorFlow

[Source Code](#)

- Preprocessed ECG signals by converting each into 1D numerical sequences for deep learning model input.
- Designed and trained a custom 5-block 1D-ResNet to classify ECG signals into 5 classes, achieving **98% accuracy, 86% macro recall, 97% macro precision, and 90% macro F1-score**.
- Applied dropout in dense and output layers and used early stopping to mitigate overfitting.

### Obesity Dataset Analysis

R, EDA, Visualization

- Built ETL pipeline and interactive dashboard; communicated insights for **decision-making**.

### Recommender Systems

Python

- Implemented **transactional** (FP-growth), **Item-Item** (cosine), and **User-Item** (NMF + NCF) recommenders with unified evaluation.
- Engineered item/user profiles; produced top-N recommendations and benchmarking pipeline.

## Experience

### Internship

National Bank of Greece

Feb 2023 – May 2023

Larissa, Greece

- \* **Cross-Selling and Customer Services:** Helped customers identify financial needs and promoted additional banking products.
- \* **Insurance Products Promotion and Sales:** Promoted and sold insurance products, explaining benefits and terms to clients.
- \* **Business & Investment Loans Training:** Studied assessment process, loan structures, and risk evaluation for business and investment lending.

**Military Service**

*Hellenic Army*

Sep 2023 – Jun 2024

*Athens & Alexandroupoli, Greece*

- \* **Basic Training (2 months):** Developed discipline, teamwork, and physical endurance while following military protocols and procedures.
- \* **Cafe–Restaurant Management (7 months):** Managed daily operations and financial tasks (budgeting, inventory control), and improved customer satisfaction by ensuring high standards of service.

**Key Competencies**

---

**Technical Skills**

- **Programming Languages & Databases:** Python, R, MongoDB, MySQL, SQLite, Excel, Neo4j.
- **Machine & Deep Learning:** scikit-learn, TensorFlow, PyTorch, NLP.
- **Data Analysis & Visualization:** ETL, pandas, NumPy, tidyverse, SciPy, data scraping, Power BI, ggplot2, Matplotlib, Plotly, Seaborn.
- **Big Data Analytics:** Experience with Hadoop, Apache Spark.
- **Interactive Reports & Version Control:** Jupyter Notebook, Quarto, Markdown, GitHub.

**Soft Skills**

- **Teamwork and Collaboration:** Ability to work well with others toward a common goal.
- **Problem-Solving:** Identifying issues and finding effective solutions.
- **Critical Thinking:** Analyzing information logically to make reasoned decisions.
- **Project Management:** Planning, organizing, and overseeing projects to ensure timely delivery and budget adherence.
- **Languages:** Greek (Native), English (C1 IELTS and C2 Michigan), German (A2), French (A1).
- **Adaptability:** Quickly learning and applying new technologies.

**Certificates**

---

**GRE Certificate**

*76th Percentile — Quantitative Reasoning*

June 2023

**Machine Learning Specialization**

*Stanford University (3 courses) (Verification)*

Jan 2025 – Jul 2025

**Excel Skills for Business Specialization**

*Macquarie University (4 courses)*

Jul 2025 – Aug 2025

**AI for Medicine Specialization**

*DeepLearning.AI (3 courses) (Verification)*

Aug 2025

**AWS Fundamentals Specialization**

*Amazon Web Services*

Aug 2025 – (in progress)

**Learn SQL for Data Science**

*UC Davis (2 courses: SQL for Data Science; SQL Problem Solving)*

Jul 2025 – Aug 2025

**Data Visualization with R**

*John Hopkins University*

Oct 2024 – Jan 2025