Michail Panagiotis Bofos

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github.com/mbofos01

Education

Utrecht University, MSc. in Artificial Intelligence — September 2023 – July 2025

- GPA: 7.84/10
- **Coursework:** Deep Learning & Pattern Recognition, Evolutionary Computing, Natural Language Processing, Human-Centered Machine Learning, Data Science for Society, AI-Driven Content Generation, Cognitive Modeling

University of Cyprus, BSc. in Computer Science — September 2018 – June 2022

- GPA: 8.38/10
- **Coursework:** Object-Oriented Programming, Computer Organization, Data Structures and Algorithms, Adv. Software Engineering, Systems Security, Human-Computer Interaction, Machine Learning, Web Technologies, Calculus I & II, Elements of Linear Algebra, Intro to Probability & Statistics, Theory of Computation

Experience

Researcher, Networks Research Laboratory (NETRL) – Nicosia, CY — March 2023 – July 2023

- Implemented user authentication using keystroke dynamics and Random Forests
- Presented developed platforms at internal meetings and EU multiplier events

Software Engineer & Researcher, Cognitive UX GmbH – Heidelberg, DE — July 2022 – July 2023

- Developed a Virtual Reality art exhibition editor using A-Frame
- Built responsive front-end interfaces with HTML5, CSS3, and JavaScript
- Implemented back-end services using Django and PostgreSQL
- Enabled server-client communication via AJAX

Projects

Natural Gas Demand Prediction System using Advanced Recursive Neural Networks (LSTM & GRU) — BSc. Thesis Project

- Developed a system for hourly natural gas demand forecasting using meteorological data, implementing LSTM and GRU neural networks
- Tools & Languages Used: Python, Keras, Pandas, Matplotlib

Automated detection of positive/non-positive shyness in children from videos — MSc. Thesis Project

- Classified positive/non-positive shyness in videos of 12 and 15-month-old children.
- Tools & Models Used: SAMURAI, VideoMAE, VideoMamba, VideoLLaVA, XGBoost, Optuna, OpenCV

Graph bi-partitioning with genetic algorithms — Link to repository

- Solved the graph bi-partitioning problem using MultiStart, Iterated, and Genetic Local Search strategies combined with the Fiduccia-Mattheyses heuristic, optimized via a custom doubly linked list for efficient local search
- Tools & Languages Used: C#

Agriculture dashboard Netherlands — Link to repository

- Developed an interactive web dashboard visualizing Dutch agricultural trends by integrating CBS and FAOSTAT datasets; implemented dynamic choropleth maps and time-series plots; deployed with Docker Compose; enabled real-time refresh using RabbitMQ messaging
- Tools & Languages Used: Dash (Flask-based), Python, Pandas, Plotly, Docker, RabbitMQ, Bootstrap, PostgreSQL

Brain activity analysis Link to repository

- Developed a pipeline for preprocessing, normalizing, and classifying multi-channel MEG time-series brain signals, including visualization of model training and saving trained models for reproducibility.
- Tools & Models Used: CNN, LSTM, RNN, Keras, NumPy, Pandas

Various other projects github.com/mbofos01

Skills & Tools

Programming Languages: Python, Java, C, C#, C++, Bash, JavaScript, SQL, CUDA, PHP

Libraries/Frameworks: Django, Dash, Plotly, A-Frame, Keras, PyTorch, Optuna, Pandas, OpenCV, OpenSSL

Technologies: Docker, UNIX, RabbitMQ, Wireshark, Git, Postman, PostgreSQL, Maven

General Tools: MS Word, MS PowerPoint, MS Access, Kanban Flow, DBeaver, VS Code

Spoken Languages: Greek (Native), English (Proficient), French (Basic), Dutch (Minimal knowledge)