JOHN (IOANNIS) MARIS

Data Science, MSc.

About Me

Belgium, Brussels, Evere

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Portfolio

LinkedIn

GitHub

Honors & Awards

APPLE MSc Scholarship - Disentangled Representation Learning via Mutual Information Optimization. Awarded from Apple, through IACM FORTH for my research in protein engineering using large language models to develop enzymes for plastic degradation. (Nov. 2024).

Erasmus+ Traineeship Grant. 3 months Awarded from Technical University of Crete.

Erasmus+ Traineeship Grant. 4 months Awarded from University of Crete.

Interests

- Machine Learning
- Statistics & Causality
- Deep Generative AI
- Natural Language Processing
- Bioinformatics
- Time Series & Econometrics
- Automotive Engineering
- Dynamical Systems

Language

- English (ECCE-Michigan)
- French (Elementary)
- Greek (Native)

Soft Skills

- Time Management
- Teamwork
- Problem Solving

Education

Master of Science in Data Analysis & Machine-Statistical Learning.

Oct. 2023 - Feb. 2025

110/90 ECTS programme.
Grade: 9.14 (Excellent).
Supervisor: Yiannis Pantazis.
Thesis topic: Generative AI in Protein Engineering using Large Language Diffusion Models
Organizing bodies:
University of Crete: Dep. of Mathematics and Applied Mathematics & Dep. of Computer Science; Foundation of Research & Technology Hellas (FORTH): Institute of Applied and Computational Mathematics (IACM) & Institute of Computer Science

Bachelor of Science in Mathematics & Applied Mathematics.

Oct. 2017 - Sep. 2022

274/240 ECTS programme.
Grade: 7.6
Supervisor: Yiannis Kamarianakis.
University of Crete: Dep. of Mathematics and Applied Mathematics.
Graduation requirements fulfilled in 9/2022, official graduation ceremony held in 7/2023.

Experience

- **Toyota Motor Europe: BEV Range Internship : Brussels, Belgium (R&D)**
  Connected Powetrain (Dec. 2024 - July 2025)
  - Data Science, Machine Learning & Data Analysis Time Series Analysis
  - Python, Git, RTBD (Real Time Big Data)
  - System Control (e.g.: Extended Kalman Filter)
  - Hybrid Models, Physical & Data Driven Models
  - BEV Energy Flow (Vehicle, Powertrain, Climate & Battery)
  - BEV Energy Consumption Prediction, Range Recommendation and Speed Forecast
- **Internship at Foundation for Research and Technology - Hellas (FORTH) - Statistical Learning & Predictive Modelling. (R&D)** (Dec. 2022 - May 2023)
- **University Teaching Assistant.** (Sep. 2022 - June 2024)
  - Machine Learning (Postgraduate), Python Computer Language (Fall 2023)
  - Introduction to Linear Algebra (Fall 2022)
  - Numerical Analysis (Spring 2024)

Publications

- **15-Minute Ahead Traffic Volume Forecasting in Athens using AR-Distributed Lag and GARCH Models with Robust Quantile Regression for Forecast Combination.** 2024
- **DiMA Protein Design: Generating Antimicrobial Peptides using Diffusion Models** 2024
- **BSc. thesis: Supervised Classification with Parametric Models** 2023
  Supervisor: Yiannis Kamarianakis
- **Identification of Normal Modes in Underwater Acoustic Propagation using Convolutional Neural Networks.** 2022
  In Proceedings of 24th international congress on acoustics, ICA, Acoustical society, Korea, 2022. **Authors**: Costas Smaragdakis, John Maris, Michael Taroudakis.

Programming & Frameworks

Python
R
PostgreSQL
Mojo

scikit-learn, pandas, PyTorch, TensorFlow, statsmodels, tsRNN, seaborn, matplotlib, SymPy, SciPy, NumPy, forecast, cdt, MASS, caret, ggplot2, glmnet, quantreg