JOHN MARIS

Data Science, MSc.

About Me

Heraklion, Crete, Greece

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Portfolio

LinkedIn

GitHub

Honors & Awards

- APPLE MSc Scholarship - Disentangled Representation Learning via Mutual Information Optimization

Awarded from IACM FORTH for research in protein engineering using large language models to develop enzymes for plastic degradation, aiming to address major environmental challenges through AI and biotechnology. (Nov. 2024)

Interests

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

Language

- English (ECCE-Michigan)
- 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) (Dec. 2024 - July 2025)
- 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

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

Programming & Frameworks

Python
R
PostgreSQL
Mojo

scikit-learn
pandas
PyTorch
TensorFlow
statsmodels
seaborn
matplotlib
SymPy
SciPy

NumPy
cdt
MASS
caret
ggplot2
glmnet
quantreg
forecast
sandwich
tsRNN