JOHN MARIS

MSc. student

About Me

Heraklion, Crete, Greece

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gianismaris13(AT)gmail.com

Portfolio

LinkedIn

GitHub

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 - Jan. 2025

90 ECTS programme.
Grade: 9.2 (Excellent).
Supervisor: Yiannis Pantazis.
Thesis topic: Generative AI in protein sequence generation using transformer-based diffusion models with language model embeddings.
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 (ICS).

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

- 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 forecast in Athens using AR models, Koyck transformation, ARDL, ARIMA, GARCH, and robust quantile regression for combining forecasts.** 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