Alexandros M. Tzortzis

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🌐 https://tzoral.github.io/AboutMe/ 💻 tzoral

AI researcher primarily focusing on the utilisation of machine learning and deep learning methodologies for power grid time series forecasting, with a strong emphasis on EU-funded research and innovation projects.

Previous Employment

National Technical University of Athens (NTUA)   **Athens, GR**
Junior Developer   *April 2023 - Present*

Contribution in European projects that are part of the Horizon programme Research. My main occupation revolved around the development of technologies and services, regarding energy efficiency using machine learning algorithms and techniques. Additionally, I offered assistance in miscellaneous academic obligations regarding undergraduate courses.

Education

University of Thessaly   **Volos, GR**
MSci in Electrical and Computer Engineering, GPA 3.42/4.0   *2017 – 2023*

National Technical University of Athens   **Athens, GR**
Ph.D in Electrical and Computer Engineering   *2023 – Present*

Notable Projects

AI4EF @ Enershare *'A solid methodological framework for assessing renovation actions in residential buildings.'*

This service consists of two ML models for implementing two different tasks related to the domain of building retrofitting and energy autonomy in the residential scale. The first model is tailored for assessing specific actions in building level, while the second model aims at assessing the potential of installing rooftop solar panels in residential buildings. A backend is implemented with a combination of fastAPI/postgREST, employing RESTful APIs to establish communication between models and frontend/database respectively.

Technical skills

- **Programming Languages:** C, C++, Python, Java, Bash, SQL, TeX, Verilog.
- **Industry Software Skills:** Docker, Kubernetes, Git/Github.
- **Languages:** Greek (native), English (C2).
- **Interests:** Cinema/Literature, Gaming, Hiking, Martial Arts, Basketball, Pop Culture.

Publications

[1] Alexandros Menelaos Tzortzis, Sotiris Pelekis, Evangelos Spiliotis, Evangelos Karakolis, Spiros Mouzakitis, John Psarras, and Dimitris Askounis. Transfer learning for day-ahead load forecasting: A case study on european national electricity demand time series. *Mathematics 2024, Vol. 12, Page 19*, 12:19, 12 2023.