Christos Petridis

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Research Interests

Machine Learning, Spatio-Temporal Forecasting, Network Science, Data Science, Information Retrieval, Knowledge Discovery, Sports Analytics

Education

Temple University, United States **Aug 2024 – Present**
Ph.D. in Computer and Information Sciences *Philadelphia, PA, USA*
GPA: 3.93/4.0
Advisor: Professor Zoran Obradovic (Data Analytics and Biomedical Informatics)

University of Thessaly, Greece **Sep 2019 – Jun 2024**
5-year Integrated Masters in Electrical and Computer Engineering *Volos, Greece*
GPA: 8.23/10.0 Top 10%
Thesis: "Detecting Hull Fouling using Machine Learning Algorithms trained on Ship Propulsion Data", Advised by Professor Michael Vassilakopoulos

Publications

Publications (1st author)

[C2] Christos Petridis, Abhudaya Shrivastava, Marijana Vacic, Zoran Obradovic.
"PixelPath: Predicting UAV Trajectories in GPS-Restricted Environments Using Image Feature Extraction and Machine Learning". Proceedings of the 21st International Conference on Artificial Intelligence Applications and Innovations (IFIP AIAI **2025** Springer proceedings).

[C1] Christos Petridis, Michael Vassilakopoulos.
"Detecting Hull Fouling using Machine Learning Algorithms trained on Ship Propulsion Data to Improve Resource Management and Increase Environmental Benefits". Proceedings of the 8th International Conference on Smart Data and Smart Cities (SDSC **2024**). ***Best paper award in Smart Green category.***

- Additional manuscripts under review or available on arXiv.

Professional Experience

Temple University **Aug 2024 – Present**
Graduate Research Assistant *Philadelphia, PA, USA (on-site)*
- Working with complex spatio-temporal data to estimate the occurrence and duration of power outages based on real-world utility data (Texas A&M University collaboration).
- Conducting sports analytics research focused on evaluating lineup performance using real-world NBA data via Bayesian inference.
- Experimenting with LLMs on schema matching, attribute value extraction and data harmonization.

Carlytics (carlytics.gr) **Sep 2025 – Present**
Co-Founder and CTO *Athens, Greece*
- Building the technological infrastructure (including the backend API service, containerization using Docker, AWS cloud architecture, and database administration) to get data-driven insights and confident predictions in the (used) car market.

Angelicoussis Group (Maran Tankers Management) **Jun 2023 – Sep 2023 (4 mo.)**
Data Science Intern*, Energy Efficiency Department* *Athens, Greece (on-site)*
- Developed a framework to extract text from company's documents and classify them into categories using NLP techniques.
- Developed a framework to select the best anti-fouling hull paint for the whole fleet.
- Worked with the R&D team on estimation of added resistance for vessels, aiming to reduce environmental impact and improve fuel management (**Integrated Master's thesis collaboration**).

Teaching Experience

Teaching Assistant for ECE311 Database Systems I — *Volos, Greece*
Electrical and Computer Engineering Department, University of Thessaly — *Fall 2023*

Teaching Assistant for ECE326 Object Oriented Programming — *Volos, Greece*
Electrical and Computer Engineering Department, University of Thessaly — *Spring 2023*

Technical Skills

AI/ML: PyTorch, Scikit-Learn, LangChain, LiteLLM, vector databases (Chroma, Pinecone), graph databases (neo4j)
Software: Python, C, Java, SQL, FastAPI
Cloud/Tools: AWS, Docker, Unix CLI, Git (Version Control), LaTeX