Christos Petridis

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Research Interests

Network Science, Data Science, Machine Learning, Spatio-Temporal Forecasting, Information Retrieval, Knowledge Discovery, Operations Research

Education

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

University of Thessaly, Greece *Volos, Greece*
5-year Integrated Master in Electrical and Computer Engineering (300 ECTS) *Sep 2019 – Jun 2024*
GPA: 8.23/10.0

- *Ranked 4th in my class (only 18 students graduated from my entry year (167 admitted students) until the graduation ceremony in July 2024).*
- *Ranked 12th among the 114 graduates **(Top 10%)** of the 2023-2024 academic year.*

Thesis: "Detecting Hull Fouling using Machine Learning Algorithms trained on Ship Propulsion Data", Advised by Professor Michael Vassilakopoulos

Publications

Conference Publications

[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). *in press*

[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.***

Professional Experience

Temple University **Aug 2024 – Present**
Graduate Research Assistant *Philadelphia, PA, USA (on-site)*

- Working on estimating the location of a UAV in GPS-denied environments.
- Working with spatio-temporal data and graph neural networks to estimate the duration and location of a power outage.

Angelicoussis Group (Maran Tankers Management) **Jun 2023 – Sep 2023 (4 mo.)**
***Data Scientist 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 tecnhiques (fine tuned pre-trained language models like DistilBERT, XLNet etc.).
- Performed fleet performance prediction & evaluation using multi-modal data related to company's ships.
- Performed exploratory data analysis to select the best anti-fouling hull paint examining different factors 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).

DevN Software Company **Jul 2022 – Nov 2022 (5 mo.)**
Software Engineer Intern *Volos, Greece (on-site)*

- Assisted in development of the front-end of two mobile (Android) applications using Java.
- Collaborated with team members using version control systems such as Git to organize modifications and updates.
- Worked with Google Firebase to manage user inputted data across the mobile applications.
- Assisted in the backend development of a web app (API service) utilizing Node.js and Express.js

Swollet Technologies Limited **Feb 2022 – Apr 2022 (3 mo.)**
Software Engineer Intern *Dublin, Ireland (remote, part time)*

- Implemented some REST APIs for the web application (Node.js, Express.js and Firebase-Firestore)

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

Languages & Frameworks: Python, Java, R, SQL, PyTorch, Scikit-Learn, C, MATLAB and some web frameworks
Technologies: Unix CLI, LaTeX, Git (Version Control), Android Studio, Xcode

Languages

English (fluent) German (basic) Greek (native)