Yorgos Felekis

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EDUCATION

PhD, Machine Learning Oct. 2022 – present University of Warwick Coventry, UK • Research Focus: Machine Learning, Causal Inference and Representation Learning, Digital Twins • Member of the Warwick Machine Learning Group MSc, Machine Learning Sep. 2019 – Sep. 2020 University College London - UCL London, UK • Degree awarded with Distinction Oct. 2014 - Jul. 2019 BSc, Mathematics National and Kapodistrian University of Athens Athens. GR • Degree awarded with First Class Honours Publications 2023 Causal Optimal Transport of Abstractions • Felekis Y., Zennaro F.M., Branchini N., Damoulas T., Causal Learning and Reasoning (CLeaR), 2024 2023 Interventionally Consistent Surrogates for Agent-based Simulators • Dyer J., Bishop N., Felekis Y., Zennaro F.M., Calinescu A., Damoulas T., Wooldridge M. arXiv preprint, 2023 2022 Probabilistic Deep Learning with Generalised Variational Inference • Felekis Y., Damoulas T., Paige B., 4th Symposium on Advances in Approximate Bayesian Inference (AABI), 2022 2022 The generalized λ -Constant Function Market Makers • Felekis Y., Kristensen J., IEEE Blockchain, 2022 2022 Cryptocurrency price prediction with Multi-task Multi-step Sequence-to-Sequence Modeling • Kristensen J., Madrigal-Cianci J.P., Felekis Y., Liatsikou M., IEEE Blockchain, 2022 ex-GPT: An Extractive-Abstractive Summarization Framework with a Sentence Embeddings Twist 2020 • Minto L., Kmec J., Felekis Y., Filippi G., preprint Deep Learning for Agricultural Land Detection in Insular Areas 2019 • Charou E., Felekis Y., Bournou D., Maria Koutsoukou M., Panagiotopoulou A., Voutos Y., Bratsolis E., Mylonas P., Likforman-Sulem L., 10th International Conference on Information, Intelligence, Systems and Applications (IISA), 2019 Experience Research Engineer Dec. 2021 – Jul. 2022 Advanced Blockchain AG • Work on the intersection of Artificial Intelligence and Blockchain technology and the mathematical aspects of DeFi.

Berlin, DE

- Specifically, study of the Automated Market Makers' dynamics via Multi-agent Reinforcement Learning Simulations and Adversarial Learning.
- Organizer of the weekly Research seminar (paper reviews, invited talks, brainstorming sessions).

Machine Learning & Data Science Consultant

Aug. 2021 – Dec. 2021

Ernst & Young (EY)

Athens, GR

• Work on AI-related platforms and technologies with a focus on Natural Language Processing and Natural Language Understanding at the IBM TechHub of EY. In particular, the work was focused on Text Classification, Document Retrieval, QA, and summarization tasks.

Machine Learning Engineer

Jan. 2021 – Jun. 2021

LangAware

Athens, GR

• Design and develop productised and deployed machine learning models for predicting neurodegenerative diseases with Natural Language Processing techniques. Specifically, work on Dementia, Alzheimer and Parkinson's diseases.

Visiting Researcher

National Centre for Scientific Research "Demokritos"

Sep. 2019 – Sep. 2020

• Mentoring and supervising internship projects of undergraduate students, as part of their BSc Diploma.

Research Scientist Dec. 2018 – Aug. 2019

National Centre for Scientific Research "Demokritos"

Athens, GR

Athens, GR

- Experimentation with Transfer Learning techniques with popular neural network architectures (AlexNet, ResNet, VGG16).
- Creation of a Sentinel-2A based dataset called "Ionio dataset" and training of a Convolutional Neural Network in order to classify Agricultural and Non-Agricultural land cover. (see publication below)
- Organise multiple workshops as the main speaker for students and researchers on Deep Learning techniques and their applications to Remote Sensing.

Research Intern Aug. 2018 – Dec. 2018

National Centre for Scientific Research "Demokritos"

Athens, GR

• Literature review of SOTA Deep Learning models for remote sensing image processing and satellite imagery.

Honours & Awards

Oct. 2022 –Apr. 2026 Turing AI Acceleration Fellowship

Onassis Scholarship for Doctoral Studies Oct. 2022 - Oct. 2025

Talks & Posters

COTA: Bridging micro and macro causal realms Dec. 2023

Warwick Postgraduate Colloquium in Computer Science

University of Warwick, Coventry, UK

Probabilistic Deep Learning with Generalised Variational Inference (poster)

Feb. 2022 $Virtual\ Event$

4th Symposium on Advances in Approximate Bayesian Inference

MSc Thesis Presentation

Jan. 2021

NCSR "Demokritos" Machine Learning seminar series

NCSR "Demokritos". Athens. GR

Machine Learning methods for satellite image processing

Jul. 2020

55th Summer School of NCSR "Demokritos"

NCSR "Demokritos", Athens, GR

Deep Learning for Agricultural Land Detection in Insular Areas

Jul. 2019

May 2019

10th International Conference on Information, Intelligence, Systems and Applications

University of the Peloponnese, Patras, GR

Deep Learning trends & techniques

Sep. 2019

Computational Intelligence Lab seminar

NCSR "Demokritos", Athens, GR

Convolutional Neural Networks for Land Use Land Cover classification

NCSR "Demokritos", Athens, GR

Computational Intelligence Lab seminar

Supervision

Tanatip Timtong, BSc Computer Science Thesis

Jul. 2022 - Apr. 2023

co-supervise with Prof. Theo Damoulas @ University of Warwick

Coventry, UK Sep. 2019 – Jan. 2020

Mary Karatzoglidi, Research Internship

co-supervise with Dr. Eleni Charou @ NCSR "Demokritos"

Athens, GR

Apr. 2023

Organization

Warwick Machine Learning reading group

Jan. 2023 – present

Focus: Causal Inference, Robustness, Probabilistic Machine Learning

University of Warwick, Coventry, UK

Three-day Hackathon

University of Cambridge, Cambridge, UK

Organized in collaboration with other Alan Turing Institute fellows

May. 2019 – Sep. 2019 NCSR "Demokritos", Athens, GR

Organized workshops, seminars and invited talks

Computational Intelligence Lab seminar

Conferences & Summer Schools

Mediterranean Machine Learning Summer School (2023)

Cambridge ELLIS Machine Learning Summer School (2022)

Oxford Machine Learning Summer School (2020)

Athens Probability Colloquium (2017, 2018)

Athens Colloquium on Algorithms and Complexity (2016, 2017, 2018)

International Conference on Algorithms and Complexity (2017)

TECHNICAL SKILLS

Languages & Developer Tools: Python, Matlab, Julia, Git, Google Cloud Platform, IBM Watson

Libraries: PyTorch, Keras, Scikit-learn, Pandas, NumPy, Matplotlib

LANGUAGES

Greek: Native English: Fluent French: Intermediate