Yorgos Felekis

yorgos.felekis@warwick.ac.uk | LinkedIn | Google Scholar | GitHub | Homepage

EDUCATION

 Doctor of Philosophy (Ph.D.), Machine Learning University of Warwick Area: Causality, Causal Representation Learning, Digital Twins Advisor: Prof. Theodoros Damoulas Member of the Warwick Machine Learning Group 	Oct. 2022 – Coven	present try, UK
 Master of Science (M.Sc.), Machine Learning University College London - UCL Degree awarded with Distinction Thesis: "Generalised Variational Inference posteriors in Probabilistic Deep Learning" Area: Probabilistic Machine Learning, Bayesian Inference Advisors: Prof. Theodoros Damoulas and Prof. Brooks Paige 	Sep. 2019 – Sep Lond	p. 2020 Ion, UK
Bachelor of Science (B.Sc.), Mathematics National and Kapodistrian University of Athens • Degree awarded with First Class Honours • Specialization Area: Applied and Computational Mathematics	Oct. 2014 – Ju Atho	ll. 2019 ens, GR
Publications		
Causal Optimal Transport of Abstractions • Felekis Y., Zennaro F.M., Branchini N., Damoulas T., Causal Learning and Reasoning (CLe	$eaR), \ 2024$	2024
 Causally Abstracted Multi-armed Bandits Zennaro F.M., Bishop N., Dyer J., Felekis Y., Calinescu A., Wooldridge M., Damoulas T., Intelligence (UAI), 2024 	Uncertainty in Artifici	2024 al
Interventionally Consistent Surrogates for Agent-based Simulators • Dyer J., Bishop N., Felekis Y., Zennaro F.M., Calinescu A., Damoulas T., Wooldridge M. a	rXiv preprint, 2023	2023
Probabilistic Deep Learning with Generalised Variational Inference • Felekis Y., Damoulas T., Paige B., 4th Symposium on Advances in Approximate Bayesian Inference	nference (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-Sequenc	nce Modeling	2022
ex-GPT: An Extractive-Abstractive Summarization Framework with a Sentence • Minto L., Kmec J., Felekis Y., Filippi G., preprint	e Embeddings Twi	st 2020
 Deep Learning for Agricultural Land Detection in Insular Areas Charou E., Felekis Y., Bournou D., Maria Koutsoukou M., Panagiotopoulou A., Voutos Y., Likforman-Sulem L., 10th International Conference on Information, Intelligence, Systems and 		

Research Engineer Advanced Blockchain AG Dec. 2021 - Jul. 2022

Berlin, DE

• Work on the intersection of Artificial Intelligence and Blockchain technology and the mathematical aspects of DeFi. 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

Sep. 2019 – Sep. 2020

National Centre for Scientific Research "Demokritos"

Athens, GR

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

- 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

Fully funded PhD position

Oct. 2022 – Apr. 2026

• Awarded via the UKRI Turing AI Acceleration Fellowship [EP/V02678X/1]: "Machine Learning Foundations of Digital Twins", awarded to Prof. Theodoros Damoulas

Onassis Scholarship for Doctoral Studies

Oct. 2022 - Oct. 2025

• Awarded in recognition of outstanding academic performance.

Talks & Posters

Causal Optimal Transport of Abstractions

May 2024 University of Warwick, Coventry, UK

Algorithms & Computationally Intensive Inference Seminar

Apr. 2024

Causal Optimal Transport of Abstractions Stanford AI Lab

Stanford University, Palo Alto, CA, USA

Causal Optimal Transport of Abstractions (poster)

Apr. 2024

Causal Learning and Reasoning (CLeaR)

UCLA, Los Angeles, CA, USA

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 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 May 2019 Computational Intelligence Lab seminar NCSR "Demokritos", Athens, GR

SUPERVISION

Tanatip Timtong, BSc Computer Science Thesis co-supervise with Prof. Theo Damoulas @ University of Warwick

Mary Karatzoglidi, Research Internship co-supervise with Dr. Eleni Charou @ NCSR "Demokritos"

ORGANIZATION

Warwick Machine Learning reading group

Focus: Causal Inference, Robustness, Probabilistic Machine Learning

Three-day Hackathon
Organized in collaboration with other Alan Turing Institute fellows

Computational Intelligence Lab seminar

Organized workshops, seminars and invited talks

Jan. 2023 – present

Jul. 2022 – Apr. 2023

Sep. 2019 - Jan. 2020

Coventry, UK

Athens, GR

Apr. 2023

 $University\ of\ Warwick,\ Coventry,\ UK$

University of Cambridge, Cambridge, UK

May. 2019 – Sep. 2019

NCSR "Demokritos", Athens, GR

Conferences & Summer Schools

Mediterranean Machine Learning Summer School (2023)

Greek Stochastics (2022, 2024)

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 Spanish: Beginner