Yorgos Felekis

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EDUCATION

Doctor of Philosophy (Ph.D.), Machine Learning	Oct. 2022 –	-
 University of Warwick Area: Causality, Causal Representation Learning, Digital Twins 	Cover	ntry, UK
Advisor: Prof. Theodoros Damoulas		
Member of the Warwick Machine Learning Group		
• Enrichment student at the Alan Turing Institute (Oct. 2024 – Jul. 2025)		
Master of Science (M.Sc.), Machine Learning	Sep. $2019 - Se$	m 2020
University College London - UCL	•	don, UK
• Degree awarded with Distinction	DOTE	aon, on
• Thesis: "Generalised Variational Inference posteriors in Probabilistic Deep Learning"		
Area: Probabilistic Machine Learning, Bayesian Inference		
Advisors: Prof. Theodoros Damoulas and Prof. Brooks Paige		
-	Oct 2014 I	
Bachelor of Science (B.Sc.), Mathematics National and Kapodistrian University of Athens	Oct. 2014 – J	un. 2019 $nens, GR$
• Degree awarded with First Class Honours	AU	iens, Gn
• Specialization Area: Applied and Computational Mathematics		
Specialization fitous hippined and computational fitationalists		
UBLICATIONS		
Causal Optimal Transport of Abstractions		2024
• Felekis Y., Zennaro F.M., Branchini N., Damoulas T., Causal Learning and Reasoning (CLeaR), 2024	
Causally Abstracted Multi-armed Bandits		2024
 Zennaro F.M., Bishop N., Dyer J., Felekis Y., Calinescu A., Wooldridge M., Damoulas T Intelligence (UAI), 2024 	., Uncertainty in Artific	ial
Interventionally Consistent Surrogates for Agent-based Simulators		2023
• Dyer J., Bishop N., Felekis Y. , Zennaro F.M., Calinescu A., Damoulas T., Wooldridge M	. arXiv preprint, 2023	
Probabilistic Deep Learning with Generalised Variational Inference		2022
• Felekis Y., Damoulas T., Paige B., 4th Symposium on Advances in Approximate Bayesia	n Inference (AABI). 202	
	v ingerence (iiiibi), 202	
The generalized λ -Constant Function Market Makers		2022
• Felekis Y., Kristensen J., IEEE Blockchain, 2022		
${\bf Cryptocurrency\ price\ prediction\ with\ Multi-task\ Multi-step\ Sequence-to-Sequence$	uence Modeling	2022
• Kristensen J., Madrigal-Cianci J.P., Felekis Y., Liatsikou M., IEEE Blockchain, 2022		
ex-GPT: An Extractive-Abstractive Summarization Framework with a Senter • Minto L., Kmec J., Felekis Y., Filippi G., preprint	nce Embeddings Tw	ist 2020
		0010
Deep Learning for Agricultural Land Detection in Insular Areas		2019
• Charou E., Felekis Y., Bournou D., Maria Koutsoukou M., Panagiotopoulou A., Voutos Likforman-Sulem L., 10th International Conference on Information, Intelligence, Systems		

Research Engineer

Dec. 2021 - Jul. 2022 Berlin, DE Advanced Blockchain AG

- 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

Alan Turing Institute Placement Award

Oct. 2024 - Jul. 2025

• Awarded as part of the Enrichment Scheme, to a limited number of PhD students from across the United Kingdom to spend 9 months of their studies in the Alan Turing Institute.

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

Think, Reason and Learn in Multi-Scale Causal Systems

Jun. 2024

Institute of Informatics & Telecommunications

NCSR "Demokritos", Athens, GR

Causal Optimal Transport of Abstractions

May 2024

Algorithms & Computationally Intensive Inference Seminar

Apr. 2024

Causal Optimal Transport of Abstractions Stanford AI Lab

Stanford University, Palo Alto, CA, USA

University of Warwick, Coventry, UK

Causal Optimal Transport of Abstractions (poster)

Apr. 2024

Causal Learning and Reasoning (CLeaR)

 $UCLA,\ Los\ Angeles,\ CA,\ USA$

Bridging micro and macro causal realms

Warwick Postgraduate Colloquium in Computer Science

University of Warwick, Coventry, UK

Probabilistic Deep Learning with Generalised Variational Inference (poster)

Feb. 2022

4th Symposium on Advances in Approximate Bayesian Inference

 $Virtual\ Event$

Dec. 2023

MSc Thesis Presentation

NCSR "Demokritos" Machine Learning seminar series

Jan. 2021

NCSR "Demokritos", Athens, GR

Machine Learning methods for satellite image processing

Demontios , Hinero, Git

55th Summer School of NCSR "Demokritos"

NCSR "Demokritos", Athens, GR

Deep Learning for Agricultural Land Detection in Insular Areas

Jul. 2019

Jul. 2020

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

Jul. 2022 – Apr. 2023 Coventry, UK

Mary Karatzoglidi, Research Internship

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

Sep. 2019 – Jan. 2020 Athens, GR

ORGANIZATION

Warwick Machine Learning reading group

Focus: Causal Inference, Robustness, Probabilistic Machine Learning

Jan. 2023 – present

University of Warwick, Coventry, UK

Three-day Hackathon

Apr. 2023
University of Cambridge, Cambridge, UK

Organized in collaboration with other Alan Turing Institute fellows

May. 2019 - Sep. 2019

Organized workshops, seminars and invited talks

NCSR "Demokritos", Athens, GR

Conferences & Summer Schools

Computational Intelligence Lab seminar

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