Ioannis Kakogeorgiou

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RESEARCH & OTHER WORK EXPERIENCE

Doctoral Researcher — May 2021 - now
National Technical University of Athens

- Projects:
    1. eOSD: An Intelligent Early-Warning Oil Spill Detection and Prediction System for the Arabian Gulf and the Red Sea, KAUST
    2. iToBoS: Intelligent Total Body Scanner for Early Detection of Melanoma, H2020
    3. RAMONES: Radioactivity Monitoring in Ocean Ecosystems, FET-H2020
- Co-supervising thesis of master students

Research Assistant — Aug 2020 - May 2021
National Technical University of Athens

- Project: SOSAME - A Prototype Method of Diagnosis, Documentation and Demonstration – Analysis of Rescue Excavations, Ionian University

Data Scientist — Mar 2018 - May 2019
Feel Therapeutics

- Development of mathematical models & algorithms.
- Application of statistical Markov models to sequential data.
- Development of a novel statistical method for the real-time evaluation of different models.
- Development of applications for time series pre-processing, data evaluation & automatic report generation.
- Web application maintenance & modification.

Private Math Tutor — Feb 2011 - Jun 2016
Self-employed

EDUCATION

2021 - now	**PhD** at National Technical University of Athens *Supervisors: Konstantinos Karantzalos, Nikos Komodakis.* *In collaboration with: valeo.ai, University of Crete, Institute of Advanced Research in Artificial Intelligence (IARAI), Athena RC.* *Topic: Self-supervised learning & Explainable AI.*
2016 - 2018	**M.Sc** in **Mathematical Modelling in Modern Technologies and Finance** at National Technical University of Athens (GPA: 9.1/10) *Focus: Neural Networks, Machine Learning, Computer Vision & Remote Sensing.* *Master Thesis: Visual Question Answering with Deep Learning.*
2010 - 2016	**B.Sc Mathematics** at University of Athens (GPA: 7.1/10|Top 14% of the graduating class) *Specialization in Applied Mathematics* *Certification in Mathematics Education*

PUBLICATIONS

[1] I. **Kakogeorgiou**, S. Gidaris, B. Psomas, Y. Avrithis, A. Bursuc, K. Karantzalos, and N. Komodakis, "What to hide from your students: Attention-guided masked image modeling," in *European Conference on Computer Vision (ECCV)*, 2022. DOI: 10.1007/978-3-031-20056-4_18.

[2] K. Kikaki, I. **Kakogeorgiou**, P. Mikeli, D. E. Raitsos, and K. Karantzalos, "Marida: A benchmark for marine debris detection from sentinel-2 remote sensing data," *PLOS ONE*, 2022. DOI: 10.1371/journal.pone.0262247.

[3] P. Mikeli, K. Kikaki, I. **Kakogeorgiou**, and K. Karantzalos, "How challenging is the discrimination of floating materials on the sea surface using high resolution multispectral satellite data?" *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, 2022. DOI: 10.5194/isprs-archives-XLIII-B3-2022-151-2022.

[4] I. **Kakogeorgiou** and K. Karantzalos, "Evaluating explainable artificial intelligence methods for multi-label deep learning classification tasks in remote sensing," *International Journal of Applied Earth Observation and Geoinformation*, 2021. DOI: 10.1016/j.jag.2021.102520.

SCIENTIFIC ACTIVITIES & AWARDS

2022	**Invited talk** to present our ECCV paper "What to Hide from Your Students: Attention-Guided Masked Image Modeling" at **Instance-Level Recognition** ECCV workshop.
2022	**Invited at poster session** to present again our ECCV paper "What to Hide from Your Students: Attention-Guided Masked Image Modeling" at **Self Supervised Learning: What is Next?** ECCV workshop.
2022	**Granted two RTX A5000 24GB** thought NVIDIA Academic Hardware Grant Program to support my research on Marine Litter Detection with Remote Sensing Satellite Data.
2022	**Awarded a PhD scholarship** from the Hellenic Foundation for Research & Innovation.
2022	**Granted computational time** in the Greek HPC facility ARIS (GRNET) under project PR012047.
2021 - now	**Reviewer** at CVPR, TNNLS, Neural Networks, IEEE Access.
2021	**Presenting** our research on "Detecting and Classifying Marine Plastic Debris from high-resolution multispectral satellite data" - A. Kikaki, **I. Kakogeorgiou**, P. Mikeli, D. E. Raitsos, and K. Karantzalos, DOI: 10.5194/egusphere-egu21-15243 at the geoscientists meeting **EGU General Assembly**.
2020	**Completed** the online Specialization **Generative Adversarial Networks (GANs)** from DeepLearning.AI.
2020	**Completed** the online course **Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning** from DeepLearning.AI.
2020	**Completed** the online course **CS-191x: Quantum Mechanics and Quantum Computation** from University of California, Berkeley.
2020	**Participant in Qiskit Global Summer School** obtaining the **Certificate of Quantum Excellence** from IBM.
2018	**Selected among 260** candidates (42 finalists), **top 15%**, for attending **a specialization program** of 120 hours on **Data Science & Data Engineering**. The program was conducted by ReGeneration, a project of the Global Shapers Athens Hub, an initiative of the World Economic Forum.