NIKOLAOS IOANNIS BOUNTOS

GitHub profile

Google Scholar profile

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EDUCATION

Technical University of Munich   *February 2020*
    MSc: Data Engineering and Analytics
Aristotle University of Thessaloniki   *September 2016*
    BSc: Computer Science

WORK EXPERIENCE

Position	Institute/Company	Time Period
Research Intern	Mila - Quebec AI Institute	April 2023 - Nov. 2023
Beyond Fellow, Visiting Researcher	AI4EO Future Lab, TU Munich	Sept. 2022 - Dec. 2022
AI Researcher/ PhD Candidate	Orion Lab - National Technical University of Athens	Jan. 2021 - **Present**
Artificial Intelligence Engineer	Motius	Dec. 2019 - Apr. 2020
Master Thesis on Computer Vision	Esri Deutschland	Apr. 2019 - Sept. 2019
Working Student Data Analytics	KPIT	July 2018 - Febr. 2019
Working Student Data Scientist	Trillr.com	Oct. 2017 - Jan. 2018
Web Developer	Newte	Dec. 2016 - Apr. 2017

AWARDS/SCHOLARSHIPS

- **Best Paper Award** at the **ICCV 2023 AI + HADR** workshop for our paper **TeleViT: Teleconnection-driven Transformers Improve Subseasonal to Seasonal Wildfire Forecasting**.

- **International Research Center on Artificial Intelligence under the auspices of UNESCO Global Top 100 list 2022-23** for the project: **Pluto - A global volcanic unrest early warning system**, rated as **Excellent**.

- **Beyond Fellow Scholarship** of the AI4EO Future Lab of the Technical University of Munich

- **European Union Agency for the Space Program - Cassini Challenge**: winner of the idea track

PUBLICATIONS

- Bountos, Nikolaos Ioannis*, Maria Sdraka* et al. "Kuro Siwo: 33 billion m^2 under the water. A global multi-temporal satellite dataset for rapid flood mapping." Advances in Neural Information Processing Systems 37 (2025): 38105-38121.[1]

- Bountos, Nikolaos Ioannis, et al. "FoMo: Multi-Modal, Multi-Scale and Multi-Task Remote Sensing Foundation Models for Forest Monitoring." Proceedings of the AAAI Conference on Artificial Intelligence. Vol. 39. No. 27. 2025.

- Kondylatos, Spyros, Bountos*, Nikolaos Ioannis*, et al. "On the Generalization of Representation Uncertainty in Earth Observation." arXiv preprint arXiv:2503.07082 (2025).[1]

- Wang, Yi, et al. "Towards a Unified Copernicus Foundation Model for Earth Vision." arXiv preprint arXiv:2503.11849 (2025).

- Spyros Kondylatos, et al. "Probabilistic Machine Learning for Noisy Labels in Earth Observation." arXiv preprint arXiv:2504.03478 (2025).

- Michail et.al "Seasonal Fire Prediction using Spatio-Temporal Deep Neural Networks" arXiv preprint arXiv:2404.06437 (2024)

- Papoutsis, Ioannis, et al. "Benchmarking and scaling of deep learning models for land cover image classification." ISPRS Journal of Photogrammetry and Remote Sensing 195 (2023): 250-268.

- Prapas Ioannis, et.al. "TeleViT: Teleconnection-driven Transformers Improve Subseasonal to Seasonal Wildfire Forecasting", ICCV 2023, HADR-AI.

- Bountos, Nikolaos Ioannis, Dimitrios Michail, and Ioannis Papoutsis. "Learning from Synthetic InSAR with Vision Transformers: The case of volcanic unrest detection." IEEE Transactions on Geoscience and Remote Sensing (2022).

- Bountos, Nikolaos Ioannis, et al. "Hephaestus: A large scale multitask dataset towards InSAR understanding." Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition. 2022.

- Bountos, Nikolaos Ioannis, et al. "Self-supervised contrastive learning for volcanic unrest detection." IEEE Geoscience and Remote Sensing Letters 19 (2021): 1-5.

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*First two authors contributed equally.