


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

Publications:

- Bountos, Nikolaos Ioannis, et al. "Self-supervised contrastive learning for volcanic unrest detection." *IEEE Geoscience and Remote Sensing Letters* 19 (2021): 1-5.
- 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.
- 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*.
- Michail et.al "Seasonal Fire Prediction using Spatio-Temporal Deep Neural Networks" *arXiv preprint arXiv:2404.06437* (2024)
- Bountos, Nikolaos Ioannis, 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.
- Bountos, Nikolaos Ioannis, Arthur Ouaknine, Ioannis Papoutsis and David Rolnick. "FoMo: multi-modal, multi-scale and multi-task remote sensing foundation models for forest monitoring." *AAAI 2025, Artificial Intelligence for Social Impact Track*.
- Kondylatos, Spyros, Bountos, Nikolaos Ioannis, et al. "On the Generalization of Representation Uncertainty in Earth Observation." *arXiv preprint arXiv:2503.07082* (2025).¹
- Spyros Kondylatos, et al. "Probabilistic Machine Learning for Noisy Labels in Earth Observation." *arXiv preprint arXiv:2504.03478* (2025).
- Wang, Yi, et al. "Towards a Unified Copernicus Foundation Model for Earth Vision." *arXiv preprint arXiv:2503.11849* (2025).

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**.

¹First two authors contributed equally.

- **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

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 Observatory of Athens & 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 |