

Samuele Papa

✉ s.papa@uva.nl | 🏠 <https://samuelepapa.github.io> | 🌐 samuelepapa | 📄 samuelepapa | 📍 Amsterdam, Netherlands

Professional Summary

Passionate researcher in **computer vision** and **representation learning** with practice on real-world applications for *3D understanding* and *medical imaging*. I have successfully published in several *peer-reviewed conferences* and relevant workshops. Comfortable working in a *collaborative team environment* at the intersection of different disciplines and eager to learn more.

Education

University of Amsterdam	<i>Amsterdam</i>
PhD in Artificial Intelligence, advised by Prof. Efstratios Gavves and Prof. Jan-Jakob Sonke	2021 - Present
Computer vision. Representation learning. Neural fields. Focus on solving inverse problems. Real-world applications to medical imaging	
Technical University of Denmark	<i>Denmark</i>
MSc in Human-Centered Artificial Intelligence	2019 - 2021
Data science, machine learning and deep learning. Thesis on object-centric representation learning.	
University of Padova	<i>Italy</i>
MSc in Computer Engineering	2018 - 2021
Software engineering, algorithms, computer vision and operations research. Graduated cum laude.	

Selected Publications

[1] **S Papa**, R Valperga, D Knigge, M Kofinas, P Lippe, JJ Sonke, E Gavves. “How to Train Neural Field Representations: A Comprehensive Study and Benchmark”. [\[CVPR 2024\]](#)
Role. Project lead, benchmark definition, experiment setup and analysis, data pre-processing.

[2] **S Papa**, D Knigge, R Valperga, N Moriakov, M Kofinas, JJ Sonke, E Gavves. “Neural Modulation Fields for Conditional Cone Beam Neural Tomography”. [\[ICML 2023 workshop\]](#)
Role. Project lead, data pre-processing, physics modeling, method development.

[3] **S Papa**, E Gavves, JJ Sonke. “Noise2Aliasing: Unsupervised Deep Learning for Aliasing and Noise Reduction in 4DCBCT”. [\[MICCAI 2023\]](#)
Role. Project lead, data pre-processing, method development.

[4] A Dittadi, **S Papa**, M De Vita, B Schölkopf, O Winter, F Locatello. “Generalization and robustness implications in object-centric learning”. [\[ICML 2022\]](#)
Role. Code engineering, large-scale experiment setup, benchmark definition, experimental analysis.

[5] **S Papa**, O Winter, A Dittadi. “Inductive Biases for Object-Centric Representations in the Presence of Complex Textures” [\[ICML 2022 workshop\]](#)
Role. Project lead, experimental setup, analysis.

Technical Skills

Programming	Python, JAX, PyTorch, CUDA, C++
Soft Skill	Teamwork, Team Leadership, Public Speaking, Scientific Communication
Languages	English, Italian (Native), Dutch (A2)

Awards

Jan. 2022	Challenge. First Prize in the NODE21 Grand Challenge for Nodule Generation
Jan. 2020	Scholarship. “Top Industrial Managers for Europe” scholarship for double-degree in Italy and Denmark
Feb. 2018	Honorary Title: “Mille e una lode” prize award to the top students in their respective majors.

Talks

Workshop. JAX. An Introduction to Deep Learning Programming Principles at Hack4Her .	Jun. 2024
Lecture. “Diffusion Models: the Mathematics from Scratch”. Lecture 7 of the Foundation Models Course at UvA .	Apr. 2024
Lecture. Deep Learning for Image Reconstruction at the Educational Workshop DL in Radiotherapy at Utrecht UMC.	Jan. 2024