



Matteo Tafuro

Artificial Intelligence Student



About Me

Versatile, passionate and excelling AI student with a strong multidisciplinary background. My main area of interest lies at the intersection between Machine Learning and Computer Vision, with specific attention to (bio)medical applications.



Contact

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Languages

Italian ●●●●● German ●●●●○
English ●●●●● French ●●●●○



Education

- 2021 - Present (Current GPA: 8.42)
- MSc. Artificial Intelligence
University of Amsterdam (NL)

2018 - 2021 (Cum Laude)

 - BSc. Advanced Technology
University of Twente (NL)



Achievements

- MSc. Artificial Intelligence
- ELLIS Honors Program
MSc. Thesis under the co-supervision of Ivana Išgum (University of Amsterdam) and Alison Noble (University of Oxford).
 - ML Reproducibility Challenge 2021
Outstanding Paper ward
 - BSc. Advanced Technology
Cum Laude graduation



Certifications

- Microsoft Azure AI Fundamentals
- Advanced English (C1 Level)

Relevant Experience

WORK EXPERIENCE

- 30 November 2022 (New Orleans, Louisiana, USA)
- **Roundtable moderator** for Toloka at **NeurIPS 2022**.
Moderated one of the roundtable discussions regarding bias in ML, data annotator empowerment and data excellence.
- Flexibility Pressure management Time management Content Curation Problem solving
- June 2022 - November 2022 (University of Amsterdam)
- **Teaching Assistant** of the Computer Vision 1 Course.
Preparing the contents of the course, helping with seminars and labs, supervising students and grading assignments/exams.
- Lesson planning Communication skills Leadership Multitasking Resourcefulness
- April 2022 - Ongoing (University of Amsterdam)
- **Research Intern**
Using AI algorithms to explore whether the diversification of gender in the social world predates, concurs, or postdates portrayals of gender in visual artworks.
- Dataset generation Data scraping BeautifulSoup Python Pandas Numpy

NOTEWORTHY ACADEMIC PROJECTS

- **Supervision-by-registration**: temporally consistent heart chamber contour detection (*Current MSc. Thesis @ research group qurAI*):
Using Image Registration as a supervision signal to extrapolate ground truth contours that remain consistent over time.
- Python Pytorch Lightning Image Registration Medical Imaging Ultrasound Imaging
- **Assessing the contractile properties of Engineered Heart Tissues** using optical flow algorithms (*BSc. Thesis*):
Presented a novel workflow for the extraction, characterization and assessment of the contractile properties of Engineered Heart Tissues that relies on motion estimation and optical flow.
- Python Pytorch Computer Vision OpenCV Optical Flow Medicine and Biology

Publications

- Matteo Tafuro, Andrea Lombardo, Tin Hadži Veljković, Lasse Becker-Czarnetzki. (2022)
- **[Re] Exacerbating Algorithmic Bias through Fairness Attacks**
Rescience C, 8(2), #22. DOI: 10.5281/zenodo.6574669
- Presented at **NeurIPS 2022** in the inaugural Journal Showcase Track
 - Awarded **Outstanding Paper Award** in ML Reproducibility Challenge 2021
- Machine Learning Pytorch Lightning Tensorflow Interpretability Fairness Adversarial attacks
- Sameer Ambekar, Matteo Tafuro, Ankit, Diego van der Mast, Mark Alence. (2022)
- **SKDCGN: Source-free Knowledge Distillation of Counterfactual Generative Networks using cGANs**
Accepted at ECCV 2022 Workshop VIPriors. DOI: 10.48550/arXiv.2208.04226
- Deep Learning Generative Models (GANs) Independent Research Team working GIT



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github.com/lutail4



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