FABIO QUATTRINI

PhD Candidate in Computer Vision @ AlmageLab, Modena (MO), Italy

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RESEARCH INTERESTS

PhD candidate at AImageLab, supervised by Prof. Rita Cucchiara and Dr. Silvia Cascianelli. Working on Computer Vision for Cultural and Historical Multimodal Sources. Main interest in Vision-Language models, Generative and Document AI.

EDUCATION

Ph.D. student in Information and Communication Technologies (ICT)

Master's degree in Computer Engineering | Artificial Intelligence Engineering

01/2023 - 03/2026

AlmageLab, University of Modena and Reggio Emilia

Modena, Italy

Supervisors: Prof. Rita Cucchiara, Dr. Silvia Cascianelli.

10/2019 - 12/2022

University of Modena and Reggio Emilia

Modena, Italy

Grade: 110/110 cum laude. GPA: 4.0/4.0. Thesis: Introducing Vision Transformers in DDPMs. [paper]

Work Experience

Applied Scientist Intern

September 2024 - March 2025

CVNA, Amazon

Berlin, Germany

- Research on Foundation GenAI models to improve Visual Understanding and Generation in Images with Text.
- Managed project planning. Supervised data collection and annotation team.

November 2021 - December 2022

AlmageLab, University of Modena and Reggio Emilia

Modena, Italy

- Implemented and Designed novel Generative Vision Transformer models for Diffusion Image Generation.
- Distributed training of Denoising Diffusion Probabilistic Models. Achieved competitive FID scores.

SELECTED PUBLICATIONS (FULL LIST HERE)

Zero-Shot Styled Text Image Generation, but Make It Autoregressive. Vittorio Pippi*, Fabio Quattrini*, Silvia Cascianelli, Alessio Tonioni, Rita Cucchiara. CVPR 2024. [paper] [code]

Alfie: Democratising RGBA Image Generation With No \$\$\$. Fabio Quattrini, Vittorio Pippi, Silvia Cascianelli, Rita Cucchiara. "AI for Visual Arts Workshop" ECCV 2024 (Oral Spotlight, Top-4). [paper] [code]

Merging and Splitting Diffusion Paths for Semantically Coherent Panoramas. Fabio Quattrini, Vittorio Pippi, Silvia Cascianelli, Rita Cucchiara. ECCV 2024. [paper] [code]

ugat: Improving Single-Page Document Parsing by Providing Multi-Page Context. Fabio Quattrini*, Carmine Zaccagnino*, Silvia Cascianelli, Rita Cucchiara. "AI for Digital Humanities Workshop" ECCV 2024. [paper] [code]

Binarizing Documents by Leveraging both Space and Frequency. Fabio Quattrini, Vittorio Pippi, Silvia Cascianelli, Rita Cucchiara. ICDAR 2024 (Oral). [paper] [code]

HWD: A Novel Evaluation Score for Styled Handwritten Text Generation. Vittorio Pippi, Fabio Quattrini, Silvia Cascianelli, Rita Cucchiara. BMVC 2023. [paper] [code]

Segmentation-based Low-Resource Text Line Recognition. Carlos Garrido Munoz, Fabio Quattrini, Carmine Zaccagnino, Silvia Cascianelli, Costanza Bianchi, Jorge Calvo-Zaragoza, Rita Cucchiara. Under Review.

AWARDS & CERTIFICATIONS

International Computer Vision Summer School - ICVSS2024 Italian Qualification to practice as an Engineer

07/2024 12/2023

ELLIS Summer School Large-Scale AI. Best project award. Camera Pose Refinement for Radiance Fields 09/2023

International Summer School on Machine Vision - VISMAC23 Kaggle Vesuvius Challenge - Ink Detection | Silver Medal

09/2023 06/2023

REVIEWER FOR JOURNALS AND CONFERENCES

ICDAR 2023, ICIAP 2023, BMVC 2023, CVPR 2024, ECCV 2024, BMVC 2024 (Outs.), CVPR 2025 (Outs.), BMVC 2025

GRANTS

EuroHPC: Development and Benchmark grants for research on Infographics Editing with Autoregressive Models. Italian SuperComputing Resource Allocation: Class C grant to explore efficient training of Generative Models.

KNOWLEDGE AND COMPUTER SKILLS

Programming: Python (Proficiency), Java, C, SQL | PyTorch, NumPy, OpenCV, Pandas, PyRobot, Scikit, Huggingface Miscellaneous: AWS (EC2, SageMaker, Rekognition), Google Cloud, Slurm, WandB Languages: English (Fluent), Italian (Mother Tongue), French (Basic)