

FABIO QUATTRINI

PhD Student @ AImageLab, Modena (MO), Italy

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SUMMARY

PhD student at [AImageLab](#), supervised by [Prof. Rita Cucchiara](#) and [Dr. Silvia Cascianelli](#), working on *Computer Vision for Cultural and Historical Multimodal Sources*, with main interest in Vision-Language models, Generative and Document AI.

WORK EXPERIENCE

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|---|--|
| Applied Scientist Intern
CVNA, Amazon | September 2024 - March 2025
Berlin, Germany |
| <ul style="list-style-type: none">Research on Foundation GenAI models to improve visual understanding and generation in images with text. | |
| Research Intern
AImageLab , University of Modena and Reggio Emilia | November 2021 - December 2022
Modena, Italy |
| <ul style="list-style-type: none">Built NLP and novel Generative Vision Transformers. Trained Denoising Diffusion Probabilistic Models (DDPMs) with distributed computing, achieving competitive Fréchet Inception Distance (FID) scores. | |
| Technical Assistant Intern
Corepixx s.r.l. | Summers 2014 - 2015
Modena, Italy |
| <ul style="list-style-type: none">Configured client systems, built product demos and interactive technology solutions for digital signage. | |

SELECTED PUBLICATIONS

- 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. [\[paper\]](#) [\[code\]](#)
- μgat: 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. [\[paper\]](#) [\[code\]](#)
- Volumetric Fast Fourier Convolution for Detecting Ink on the Carbonized Herculaneum Papyri.** *Fabio Quattrini*, Vittorio Pippi, Silvia Cascianelli, Rita Cucchiara. "4th ICCV Workshop on e-Heritage", ICCV 2023. [\[paper\]](#) [\[code\]](#)
- Optical Music Generation: Leveraging Off-The-Shelf Diffusion Models to Synthesise Handwritten Scores.** Pau Torras, *Fabio Quattrini*, Vittorio Pippi, Gerard Asbert, Silvia Cascianelli, Alicia Fornés, Rita Cucchiara. *Under Review*.

EDUCATION

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|--|------------------------------------|
| Ph.D. student in Information and Communication Technologies (ICT)
AImageLab , University of Modena and Reggio Emilia
Supervisors: Prof. Rita Cucchiara , Dr. Silvia Cascianelli . | 01/2023 - 03/2026
Modena, Italy |
| Master's degree in Computer Engineering Artificial Intelligence Engineering
University of Modena and Reggio Emilia
Grade: 110/110 cum laude. Thesis: Introducing Vision Transformers in DDPMs. [paper] | 10/2019 - 12/2022
Modena, Italy |
| Bachelor's degree in Computer Engineering
University of Modena and Reggio Emilia | 09/2016 - 10/2019
Modena, Italy |

CERTIFICATIONS

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|---|---------------|
| International Computer Vision Summer School - ICVSS2024 | 07/2024 |
| ELLIS Summer School Large-Scale AI for Research and Industry | 09/2023 |
| Best project award. ClearView: Camera Pose Refinement for Improved Radiance Fields | Modena, Italy |
| International Summer School on Machine Vision - VISMACH23 | 09/2023 |
| Kaggle Vesuvius Challenge - Ink Detection Silver Medal | 06/2023 |

KNOWLEDGE AND COMPUTER SKILLS

- Programming:** Python (Proficiency), Java, C, SQL | PyTorch, NumPy, OpenCV, Pandas, PyRobot, Scikit, Huggingface
- Miscellaneous:** AWS (EC2, SageMaker, Rekognition), Slurm, WandB, English (Fluent)