GIORDANO CICCHETTI

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SUMMARY

Ph.D. Candidate in Multimodal AI with expertise in machine learning and deep learning. Specialized in multimodal representation learning and aligment, and deep knowledge of multimodal generative AI. Proven track record in collaborative research environments and leadership in innovative projects.

EXPERIENCE

Sapienza University of Rome — Rome, Italy
Teaching Assistant – MSc in Electronics Engineering — *Sep – Dec 2024*

- **Machine Learning for Signal Processing (Fall 2024)**: assisted in lectures, project preparation, creation of new teaching material, and evaluation for data science and machine learning basics.

Enel Global Services S.r.l. — Rome (RM), Italy
AI Engineering (Internship) — *April – Oct 2023*

- Developed a Generative AI based pipeline to restore original quality of dirty documents, improving the performance of downstream OCR systems used to automatically process them.
- Implemented different AI-Based solutions with different architectures and training styles: simple AE, GAN and Diffusion Models. Best model developed: NAF-DPM. State of the art performance in many document enhancement tasks and datasets.
- Tech stack: AWS services including Lambda, S3, and SageMaker; Python; Pytorch.

PUBLICATIONS

- **"Gramian Multimodal Representation Learning and Alignment"**. *G. Cicchetti, E. Grassucci, L. Sigillo, D. Comminiello.* ICLR 2025
- **"Closing The Modality Gap Enables Novel Multimodal Learning Applications"**. *E. Grassucci, G. Cicchetti, D. Comminiello.* ICLR 2025 Re-Align Workshop
- **"Contrastive Learning Enables Low-Bandwidth Semantic Communication"**. *E. Grassucci, G. Cicchetti, D. Comminiello.* AAAI 2025 AI4WCN Workshop
- **"Language-Oriented Semantic Latent Representation for Image Transmission"**. *G. Cicchetti, E. Grassucci, J. Park, J. Choi, S. Barbarossa, D. Comminiello.* MLSP 2024
- **"NAF-DPM: A nonlinear activation-free diffusion probabilistic model for document enhancement"**. *G. Cicchetti, D. Comminiello.*

EDUCATION

Ph.D. in Information and Communication Technology (ICT) — Nov 2023 – Oct 2026
Sapienza University of Rome — *Rome, Italy*

MSc. in Engineering in Computer Science — Oct 2021 – Oct 2023
Sapienza University of Rome — *Rome, Italy*

B. Eng. in Engineering in Computer Science — Sep 2018 – Oct 2021
Sapienza University of Rome — *Rome, Italy*

SKILLS

- **Programming**: Python, PyTorch, TensorFlow, Numpy, Java
- **Development**: Docker, Git, SQL, NoSQL, CI/CD, AWS, Linux
- **Soft Skills**: Leadership, Project Management, Scientific Writing, Public Speaking, Time Management

PROJECTS

- **GRAM**: Implementation of "Gramian Multimodal Representation Learning and Alignmen".   github Site
- **NAF-DPM**: A Nonlinear Activation-Free Diffusion Probabilistic Model for Document Enhancement. Publication under review at IEEE Transactions on Image Processing.   github
- **Img2Img-SC**: Implementation of "Language-Oriented Semantic Latent Representation for Image Transmission"   github