

DUCCIO MECONCELLI

⚡ PhD Student in Smart Computing ⚡

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Date of birth: 01/05/1999

AI Explorer <ö>

PhD Student in Smart Computing

- [-] Passionate about **Artificial Intelligence**, focusing on **Generative Models** (Diffusion Models).
- [-] Blending engineering fundamentals with hands-on **software development & Machine Learning**.
- [-] Always in pursuit of applying AI to complex, innovative, and creative challenges.

{==[Code | AI | Retro-tech | Generative Art]==}



Current Position

PhD Student in Smart Computing

Nov 2024 - Present

University of Florence / University of Siena, Italy

- [*] PhD program in Smart Computing, University of Florence.
- [*] Current Research activities: Generative Models (especially Diffusion Models) for Bioinformatics / Image Generation, Graph Neural Networks, Transformers and Computer Vision.
- [*] Active collaboration with the Department of Information Engineering and Mathematical Sciences (DIISM), University of Siena.



Education

Master's Degree: AI & Automation Eng.

Oct 2022 - May 2024

University of Siena, Italy

Thesis: *Organic Molecule Generation using Latent Diffusion* (Superv: Prof. F. Scarselli).

Grade: **110/110 cum laude**.

Bachelor's Degree: Info. Eng.

Sep 2018 - Apr 2022

University of Siena, Italy

Thesis: *Deep Learning Methods for Renal Glomeruli Segmentation* (Superv: Prof. M. Bianchini).

Grade: **106/110**.

High School Diploma (Scientific)

Sep 2013 - Jul 2018

Liceo Scientifico "G. Galilei", Siena, Italy

Grade: **78/100**.



Work Experience

Software Developer & Machine Assembler Intern

May 2022 - Sep 2022

DAINESE SRL, Buonconvento (SI), Italy

Developed winery management web app (React). DB design/impl. Assembled enological machinery, optimized production processes.

Professor / Contract Lecturer

March 2025

Fondazione 'FISM', Florence, Italy

Teaching: Frontend Dev + Best Practices. Topics: Terminal, Git/GitHub, React, JS(ES6+), Debugging, Docs, OpenAPI.

Publications

Chemical-Aware Autoencoders for Eco-Selective Adsorption of Wastewater Contaminants

Sep 2025

IEEE METROGREENST 2025 Conference Proceedings

Authors: *D. Meconcelli, et al.* [->] (not yet available)

Gaussian-mixture Neural Networks

Sep 2024

ANNPR 2024 Conference Proceedings

Authors: *D. Meconcelli, E. Trentin* [->] [Link](#)

DeepLearning Approaches for mice glomeruli segmentation

Oct 2022

ESANN 2022 Conference Proceedings

Authors: *D. Meconcelli, S. Bonechi, G. M. Dimitri* [->] [Link](#)

Awards & Recognitions

Premio Renato Mariani

March 2025

Italian Association for Electrical, Electronics, Automation, Informatics and Telecommunications - Tuscany and Umbria Section

Award for a new master's graduate in the calendar year 2024. The Italian Association for Electrical, Electronics, Automation, Informatics and Telecommunications – Tuscany and Umbria Section, funded by Eng. Enrico Mariani (former President of the Florence Section and distinguished AEIT member), awards its first prize named in honor of his late son, Dr. Renato Mariani.

SKILLS

Machine Learning / AI :

- + Deep Learning (PyTorch)
- + CNN, RNN, GAN, Transformer
- + Diffusion Models
- + Graph Neural Networks (GNN)

Programming :

- + Python (Adv: NumPy, Pandas, telegram bot)
- + SQL (PostgreSQL)
- + JavaScript (React, Node - basic)
- + Shell Scripting (Bash)
- + C (Basics)
- + modern C++

Software Dev :

- + REST APIs (Flask, FastAPI)
- + Web Dev (HTML, CSS, React, Vite)
- + Version Control (Git/GitHub)
- + 3D CAD (Fusion 360)

Tools / Other :

- + Linux
- + Docker
- + LaTeX

Languages :

- + Italian (Native)
- + English (B2)

Interests

3D Printing: Hands-on experience with 3D modeling, slicing software, and printer maintenance. Enthusiastic about rapid prototyping, custom designs, and DIY engineering projects.

Homelab: Self-hosted services, network administration, virtualization, and home automation. Passionate about security, performance optimization, and self-sufficiency in tech.

Gaming: Hardcore Nintendo fan with a deep appreciation for retro gaming. Lifelong admirer of the *Metal Gear* series and immersive storytelling in games.

Movies & Series: Sci-fi and cyberpunk enthusiast. Huge fan of *Cowboy Bebop* and auteur cinema—particularly *Oldboy* (Park Chan-wook).

Tech: Active open-source coder with a strong interest in AI ethics and safety. Constantly exploring and testing emerging frameworks and technologies.

Generative ART: Passionate about AI-driven creativity art. Experimenting with ASCII-based visuals, pixel art, and procedural generation inspired by retro aesthetics.

Other: Category B driving license. Open to travel, new experiences, and international opportunities.

SEE YOU SPACE COWBOY...

// I authorize the processing of my personal data contained in this CV //

// pursuant to Italian Legislative Decree 196/2003 and EU Reg. 2016/679 (GDPR). //