

Luca Filippetti

Computer engineer

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 Torino, Italy | Date of birth: 10 October 1999

Experience

Politecnico di Torino | CAD - Electronic CAD & Reliability Group

RESEARCH FELLOW - ARBOARD PROJECT

Torino, Italy

Apr 2025 – Present

- Developed **AR applications using Unity** on smart glasses for **real-time PCB debugging** and component diagnostics in electronics, automotive, and industrial sectors.
- Technologies: Unity 3D, C#, AR Foundation, MRTK3, XReal SDK, Python, OpenCV, Machine Learning, Android, Git
- Collaborated with **multidisciplinary research team**.
- **Award-winning project:** ARBoard won **University Fair Award for Best Demo at DATE 2025 Conference** and was selected for **Fondazione Compagnia di San Paolo PoC Launchpad** program, advancing toward commercialization as a startup.

Education

Politecnico di Torino

Torino, Italy

Apr 2025

M.Sc IN COMPUTER ENGINEERING (GRAPHICS & MULTIMEDIA SPECIALIZATION) - FINAL MARK: 107/110

Specialization in **graphics, multimedia, and extended reality (XR)**. Advanced coursework: Computer Animation, Visual Effects, Image Processing & Computer Vision, Machine Learning for Multimedia, Virtual Reality, Human-Computer Interaction. Integrated machine learning and visual effects electives into standard curriculum. **HR Manager** of IEEE-HKN Mu Nu Chapter, organizing recruitment for 50+ members, coordinating team meetings, and managing stakeholder engagement.

Politecnico di Torino

Torino, Italy

Oct 2021

B.Sc IN CINEMA AND MEDIA COMMUNICATION ENGINEERING - FINAL MARK: 96/110

Strong foundation in **object-oriented programming** (Java, C++), signal analysis, image algorithms, 3D modeling, and animation. Focus on media communication principles and creative technology integration. Developed skills in **virtual scene creation** and multimedia production pipelines.

Liceo Scientifico A. Pacinotti

La Spezia, Italy

2018

HIGH SCHOOL DIPLOMA - SCIENTIFIC LYCEUM - FINAL MARK: 84/100

Leadership & Activities

IEEE-HKN Mu Nu Chapter (Student Honor Society)

Politecnico di Torino, Italy

Mar 2023 – Jun 2024

HR MANAGER

- Organized **recruitment process for 50+ new members** across 2 selection cycles, managing interviews, assessments, and onboarding.
- **Coordinated team meetings**, assigned tasks, and tracked progress for HR initiatives and association events.
- Managed **stakeholder communication** with 200+ association members, fostering collaboration and engagement.
- Developed **leadership, organizational, and communication skills** through project execution and team management.

Projects

ARBOARD - AR PCB DEBUGGING PLATFORM

Mixed reality application for real-time circuit board debugging and diagnostics on AR glasses and PC. Confidential / Private Repository (under NDA). **Award:** University Fair Award - Best Demo (DATE 2025 Conference). ([Project Website](#) | [Research News](#))

LA PORTA - PSYCHEDELIC VR EXPERIENCE

Oculus VR application featuring immersive psychedelic environments. 3D environment development in Blender, gameplay mechanics and scripting in Unity C#. Focus on user interaction design and VR performance optimization. ([Project link](#))

EXPLORER - SPACE IS INSIDE

Hybrid 3D animation + AR interactive experience on space exploration theme. Created 40+ minute 3D animation in Blender + DaVinci Resolve. Built AR application with Unity + Vuforia for real-world marker interaction. Demonstrated multimedia integration from pre-production to deployment.

NEOS BAR - 3D ENVIRONMENT RENDERING

Photorealistic render of retro 1980s bar environment. Advanced 3D modeling in Blender with PBR texturing in Substance Painter.

Focus on lighting, materials, and stylized environment design.

Skills

TECHNICAL SKILLS

C#, Python, Java, JavaScript, C, SQL · Unity 3D · AR Foundation · MRTK3 · XReal SDK · Vuforia · OpenCV · Computer Vision · Image Processing · Machine Learning · Blender · Git/GitHub · Object-Oriented Programming · Software Engineering · Database Design

SOFT SKILLS

Problem Solving · Teamwork · Leadership · Communication · Adaptability · Creative Thinking · Organizational Skills · Project Management

Languages & Additional Info

Italian: Native Speaker · **English:** B2 (IELTS Certified - Sep 2021), Technical English: Proficient

Work Authorization: EU Citizen (Italian) - Full right to work in EU

Additional: Black Belt 1st Dan (Karate-Do) · Open Water Diver (SSI Certification)

Availability: June 2026 (Currently on research fellowship until May 2026)