Sebastian Cavada

Computer Vision student & Digital Innovator

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About Me

Computer Vision Researcher and Digital Innovator with proven expertise in 3D reconstruction, real-time pose tracking, and neural network optimization for low-resource systems. Demonstrated track record of winning hackathons and leading technical projects, combining theoretical knowledge with practical implementation. Multilingual professional with experience in international collaborations and a passion for applying advanced computer vision solutions to environmental challenges.

Social Network

in Linkedin Profile

Github Profile Page

🌐 Website

Languages

🇮🇹 Italian - C2 - mother tongue

🇬🇧 English - C1 - IELTS score band 8

🇩🇪 German - B2 - University exam

Education

Bachelor in Computer Science

2023 – 2025	**Master in Computer Vision**	MBZUAI - Abu Dhabi

Pursuing Master of Research in Computer Vision at MBZUAI, Large scale reconstruction, 3D foundation models and Gaussian splatting supervised by Prof. Ian Reid.

2019 – 2023	**Bachelor Computer Science**	Free University Bolzano

Graduated with **108/110** in Computer Science from a trilingual university, proficient in English, German, and Italian. Thesis project supervised by Prof. Oswald Lanz.

2022	**Erasmus - Cognitive Science**	Univerität Osnabrück

Studied Cognitive Science for 6 months at the University of Osnabrück, in Germany, focusing on **Machine Learning and Computer Vision**. Strengthen my German language and communication skills.

2016 – 2019	**Maturità Italiana**	ITT Marconi, Rovereto

Graduated with **97/100** in the technical school in Rovereto with a specialization in Computer studies

2017 – 2018	**Irish Leaving Certificate**	CBS Mitchelstown, Mitchelstown

4th year abroad, learned English, and achieved the Irish Leaving Certificate graduating with **476/625**

Publications

2024 — **Does Complexity Pay Off? Applying Advanced Algorithms to Depression Detection on the GLOBEM Dataset**
Sebastian Cavada, Alvaro Berobide, Yevheniia Kryklyvets
IARIA - HEALTHINFO 2024

2025 — **Submission under review**
2 contributions
ICCV 2025

Awards

March 2024	**Winner of the Pioneers4.0 Hackathon**, co-organized by the Ministry of Industry and Advanced Technology (MoIAT), EDGE Group, and LIPTON. Awarded a special internship at LIPTON.	EDGE - UAE
July 2023	**Winner of fully founded master of research scholarship**	MBZUAI - UAE
Sep. 2022	**Winner of Challenge "4D buildings" by Siemens**	HackZurich

Projects

2019 – now	**Hackathons**	Around the world

Participated in numerous hackathons across Europe, demonstrating strong collaborative and technical skills. Achieved a notable 50% win rate in competitions. In 2022 I led a team to win first prize in the "4D Buildings" challenge at HackZurich, Europe's largest hackathon.

2019 – now	**iRefill**	Valle di Fiemme

Developed and continually enhanced "iRefill," a long-term project focusing on environmental solutions in food packaging. Overcame numerous challenges through dedicated efforts and collaboration with the co-founder. Actively contribute to a related blog, sharing insights and discussions on environmental topics.

2021 - 2023	**Climathon Fiemme**	Predazzo

Co-organized the inaugural Climathon in Fiemme Valley, collaborating with three other individuals passionate about climate action. Successfully attracted over 50 participants, resulting in 9 innovative ideas and business projects with significant local community impact over the years.

Sebastian Cavada
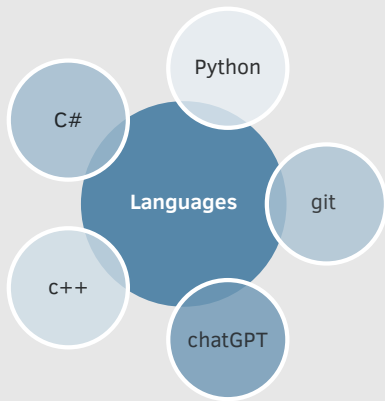
Computer Vision student & Digital Innovator

Interests ────────

AWS | Virtual Reality | VueJS
Flutter | MySQL | Open Source
Computer Vision | SLAM

Soft Skills ────────

💡 Creative ● ● ● ● ●
⌖ Technologist ● ● ● ● ●
👥 Teamwork ● ● ● ● ●
🏋 Problem Solving ● ● ● ● ●

PLs ────────

Python
C#
Languages
git
c++
chatGPT

Interests ────────

🚲 Sport

🎵 Music

📷 Photography and Video Editing

📖 Reading

Working Experience

2021 – 2022 **VR Developer** *RealverseVR - a Start Up project*
CTO and VR programmer at RealverseVR: Led development of educational experiences through VR technologies such as unity and meta quest, resulted in the publishing of a Virtual experience on Quest store and SteamVR, in collaboration with the museum of the Lagazuoi, Cortina.

2021 – 2023 **Student Tutor** *University of Bolzano*
Appointed for individual study support based on previous experience, personal characteristics, and expressed availability

2021 – 2023 **Junior Developer** *Suggesto*
Worked on web scraping, web application development using Flutter, and various testing and reporting tasks.

2018 – 2021 **Sales Staff** *La sportiva, Ziano di Fiemme*
Worked for three summers in sales at a leading mountaineering equipment company, improving sales and communication skills.

Internship

Summer 2024 **CVI2 - University of Luxembourg** *Mesh Reconstruction with LLMs*
Developed and implemented pipelines for dataset creation to instruct-tune Open-Source LLMs on 2D and 3D structured mesh autocompletion. Utilized PyTorch, Torchrun, HPC, and WandB for visualization. Overcame challenges in accelerating the training process to complete within two days. *Supervised by Dr. Anis Kacem.*

Summer 2023 **FBK Trento** *Implementation of AI task*
Developed and implemented **computer vision** AI task using an approach to scale **neural network** for low-resource systems. Created open-source code for portability across multiple platforms. Developed a pipeline from GPU development in Python to MCU deployment in C. *Supervised by Francesco Paissan.*

2022 – 2023 **Thesis Internship** *UniBZ and NOI Techpark*
Developed a real-time human 3D pose tracking system using egocentric and exocentric video streams, which served as the basis for my thesis with that title. Also created a digital twin of the indoor environment, improving my expertise in data processing and visualization. *Supervised by Prof. Oswald Lanz*

Summer 2017 **Junior WEB Developer** *Suggesto*
Developed mesh network project, created content, tested infrastructure, and made improvements on the existing codebase.

Extra-Curricular Activities

2022 - now **Content creator on YouTube**, sharing tips and my experiences while traveling and programming

2023 **MBZUAI Entrepreneurship Courses**, hosted by StartAD to accelerate ideas development

2023 **Practice-oriented course on the EU's history**, structure, and politics at the University of Innsbruck EUREGIO Brussels School, including a visit to the European Parliament in Brussels.

2021 **Entrepreneurship and Innovation Master course** as a free choice at the Free University of Bolzano

2020 - 2022 **Student representative** of the computer science faculty.