



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

[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
	Master of Research in Computer Vision, Mohamed bin Zayed University of Artificial Intelligence (MBZUAI), Abu Dhabi, UAE, Graduated 2025, Focused on large-scale 3D 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	Universität 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 <i>Sebastian Cavada, Alvaro Berobide, Yevhenia Kryklyvets</i> IARIA - HEALTHINFO 2024	
2025	CAD-Assistant: Tool-Augmented VLLMs as Generic CAD Task Solvers <i>Dimitrios Mallis, Ahmet Serdar Karadeniz, Sebastian Cavada, Danila Rukhovich, Niki Foteinopoulou, Kseniya Cherenkova, Anis Kacem, Djamila Aouada</i> 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

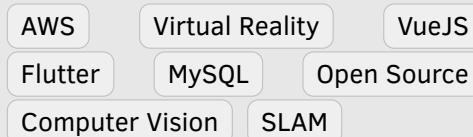
Projects

2019 – now	Hackathons 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.	Around the world
2021 - 2023	Climathon Fiemme 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.	Predazzo

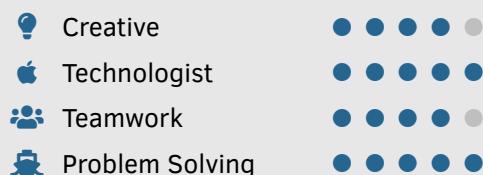
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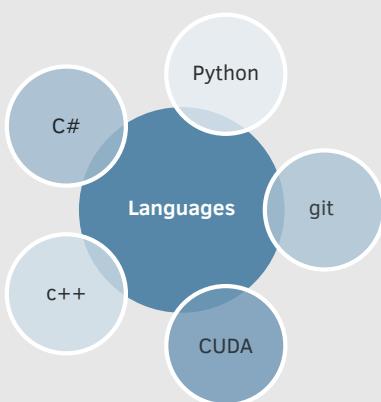
Interests



Soft Skills



PLs



Interests



Working Experience

2021 – 2022	VR Developer 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.	RealverseVR - a Start Up project
2021 – 2023	Student Tutor Appointed for individual study support based on previous experience, personal characteristics, and expressed availability	University of Bolzano
Internship		
Fall 2025	Collaborator – INRIA Paris Researching how vision–language models interpret physical dynamics in synthetic environments; project in preparation for ICML. Supervised by Raoul de Charette.	Gaussian Splatting
Summer 2025	Visiting Researcher – MBZUAI Fine-tuned 3D foundation models to incorporate camera parameter priors, improving pose-aware depth estimation. Supervised by Prof. Ian Reid.	3D Foundation Models
Summer 2024	CVI2 – University of Luxembourg Mesh Reconstruction with LLMs Built dataset creation pipelines to instruction-tune open-source LLMs for 2D/3D mesh autocompletion. Utilized PyTorch, Torchrun, HPC, and WandB for visualization; accelerated training to complete within 2 days. Supervised by Dr. Anis Kacem.	Mesh Reconstruction with LLMs
Summer 2023	FBK - Trento Efficient Neural Networks for Embedded Systems Designed a computer vision pipeline to scale neural networks for low-resource devices, from GPU prototyping in Python to MCU deployment in C. Released code as open-source. Supervised by Francesco Paissan.	Efficient Neural Networks for Embedded Systems
2022–2023	Thesis Internship – UniBZ Egocentric/Exocentric 3D Pose Tracking Developed a real-time 3D human pose tracking system integrating egocentric and exocentric video streams, forming the basis of my thesis. Created a digital twin of the indoor environment for enhanced visualization. Supervised by Prof. Oswald Lanz.	Egocentric/Exocentric 3D Pose Tracking
Summer 2017	Junior Web Developer – Suggesto Mesh Network Project Implemented a mesh network system, created content, tested infrastructure, and improved existing codebase.	Mesh Network Project

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 at the Free University of Bolzano.