



Mahbod Tajdini
 Master of Science in Data Science
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EDUCATION

Degree	Institute	CGPA	Year
MSc in Data Science	Universität Zürich (UZH)	N/A (Ongoing)	2025 – Present
	ETH Zürich (Special Student)		
BSc in Artificial Intelligence	Vrije Universiteit Amsterdam (VU Amsterdam)	8.5/10 (=4.0 GPA)	2022 – 2025





Bachelor's Thesis: *Exploring Ball Recovery Times in Professional Football: Insights and Patterns*

RESEARCH EXPERIENCE

- ETH Zürich - Computer Vision and Geometry Group (CVG) [🌐]** Mar 2026 – Present
 Graduate Student Researcher Zürich, Switzerland
 - Working on state-of-the-art dynamic SLAM under the supervision of Dr. Dániel Béla Baráth, integrating semantic scene graphs into deep visual SLAM by extending DROID-SLAM in the Wild (DROID-W) to improve efficiency and robustness in unconstrained environments
- ETH Zürich - Ecosystem and Landscape Evolution Group (ELE) [🌐]** Mar 2026 – Present
 Research Assistant Zürich, Switzerland
 - Supporting the development of [WildInSync](#), an initiative for global biodiversity monitoring that combines environmental DNA, remote sensing, and AI to generate standardized data for conservation research and decision-making
- EPFL - Signal Processing Laboratory (LTS4) [🌐]** Feb 2026 – Present
 Visiting Student Researcher Lausanne, Switzerland
 - Conducting research on scalable cell-graph representations for digital pathology, focusing on batch-effect-robust graph construction, edge enhancement with tissue context, and graph diversity to improve generalization
 - Investigating multimodal foundation-model approaches that combine cell graphs and vision models, exploring efficient fine-tuning strategies and curated large-scale datasets for robust zero-shot and transfer learning
- VU Amsterdam - Sports Intelligence Lab (SIL) [🌐]** Jun 2025 – Mar 2026
 Research Assistant Remote
 - Conducted data-driven research on ball recovery in professional football and explored machine learning applications in the sport under the supervision of Dr. Mauricio Verano Merino
 - Analyzed large-scale educational data to evaluate the effects of Generative AI tools on student outcomes in programming courses, contributing to a paper published at *ICSE 2026 (SEET Track)*
- Forward Football [🌐]** Sep 2024 – Jun 2025
 AI Research Intern Amsterdam, Netherlands
 - Researched machine learning and computer vision models for football intelligence and tactical optimization
 - Analyzed large-scale spatiotemporal datasets to model player interactions, quantify team performance, and derive data-driven tactical insights

WORK EXPERIENCE

- ETH Robotics Club (ETHRC) - Aeronautics [🌐]** Apr 2026 – Present
 Perception Engineer Zürich, Switzerland
 - Working with the Aeronautics team, where we use autonomous FPV racing drones to push the limits of high-speed aerial robotics, contributing to the perception stack by developing real-time visual-inertial odometry (VIO), gate detection, state estimation, Kalman filtering, sensor fusion, and motion capture to support environment perception, localization, and autonomous navigation in dynamic environments
- ETH Zürich - Ecosystem and Landscape Evolution Group (ELE) [🌐]** Jan 2026 – Present
 Teaching Assistant Zürich, Switzerland
 - Serving as a Teaching Assistant for Environmental Systems Data Science: Machine Learning (701-3003-00L) under the supervision of Prof. Dr. Loïc Pellissier and Dr. Camille Pierre Albouy

- **Forward-Inc**  *Jan 2026 – Mar 2026*
Amsterdam, Netherlands
Student AI Consultant
 - Advising mission-driven organization on AI implementation through research and data analysis, evaluating AI tools and platforms, and delivering strategic roadmaps that align AI adoption with organizational goals and operational improvements
- **Universität Zürich - IFI**  *Sep 2025 – Dec 2025*
Zürich, Switzerland
Head Teaching Assistant
 - Served as Head Teaching Assistant (TA) for Informatics I (22AINF02) under the supervision of Prof. Dr. Harald Gall and Dr. Carol Alexandru, leading the TA team and managing teaching operations, exercise design, and assessment processes to ensure high-quality student learning support and effective course delivery
- **VU Amsterdam - Faculty of Science**  *Apr 2023 – Jun 2025*
Amsterdam, Netherlands
Teaching Assistant
 - Mentored new TAs through workshops, training sessions, and personalized feedback as a TA Mentor, enhancing instructional quality across the Faculty of Science
 - Taught and supported Machine Learning-focused courses and labs across 10+ undergraduate and Honors-level courses
 - Coordinated TA activities, contributed to course design, and facilitated communication between instructors and students as Head TA for the course: Computational Thinking (X_400475)
- **Baridsoft**  *Jun 2021 – Aug 2021*
Tehran, Iran
Information Technology Intern
 - Worked on computer systems, network infrastructure, and IT support, with hands-on experience in troubleshooting, device configuration, and maintaining internal systems




RESEARCH PUBLICATIONS

- **Capitalising on Football Data with Machine Learning: A Literature Review** *Accepted - ACM Computing Surveys (ACM CSUR) 2026*
Dionysios Kyriazopoulos, Mahbod Tajdini, Mauricio Verano Merino,
- **The Clash of Codes: From Peer-to-Peer Duplication to AI-Generation in Introductory Programming Assignments** *ICSE 2026 (SEET Track)*
Jose Maria Zuzarte Reis Claver, Mahbod Tajdini*, Mauricio Verano Merino*
- **Programming Lego MINDSTORMS Robots using NI LabVIEW®** *Open-access eBook - April 2022*
Pooyan Nayyeri, Mahbod Tajdini

POSITIONS OF RESPONSIBILITY

- **Hack4Good Organizing Staff**, Analytics Club at ETH Zürich *Nov 2025 – Present*
- **Executive Staff**, European Student Robotics Association (ESRA) *Nov 2025 – Mar 2026*
- **Voting member of the Program Committee for AI**, VU Amsterdam *Oct 2022 – Jun 2025*
- **Year Representative for BSc AI**, VU Amsterdam *Oct 2022 – Jun 2025*
- **International Student Ambassador**, VU Amsterdam *Oct 2022 – Jun 2025*
- **Robotics Competition Judge**, WRO Netherlands *Jun 2023 – Jul 2023*
- **Captain of the Student Robotics Team**, University of Tehran *Jun 2017 – Nov 2019*

PROJECTS

- **ETH Zürich: ML in Finance**   *Aug 2025 – Oct 2025*
 - Evaluated the predictive efficacy of machine learning and deep learning architectures for Solvency II ratios under synthetic economic and stress scenarios
 - Implemented a reproducible SHAP-based interpretability framework to align algorithmic methodologies with actuarial principles, facilitating expert validation
- **Exploring Ball Recovery Times in Professional Football**  *Jan 2025 – Jun 2025*
 - Analyzed how key match events affect ball recovery times in elite football using open-access event data, and created game-timeline visualizations to reveal patterns around goals, substitutions, cards, and tactical shifts
 - Developed a reproducible Python pipeline to compute recovery metrics, perform statistical tests (normality, group differences, effect sizes), and present insights through interactive dashboards

ACHIEVEMENTS

Academic Distinctions

- BSc in AI, VU Amsterdam – Graduated *cum laude* (Top 8% of cohort) *Jul 2025*
- IB Diploma Programme – Top 3% Worldwide *May 2022*

Hackathons

- *3rd place* at [Datathon by Analytics Club at ETH](#) – Switzerland’s largest ML hackathon *Apr 2026*
- *4th place* at [Anthropic Hackathon by Claude Builder Club of ETH Zürich](#) *Mar 2026*

University of Waterloo - CEMC (Canadian Computing Competition)

- Awarded Certificate of Distinction as a *Top 25%* contestant worldwide *Dec 2020*
- Achieved *1st rank* in Iran *Dec 2020*

World Robot Olympiad (WRO)

- *1st place*, Football Category, Iran National Selection Competition *Oct 2019*
- *1st place*, Football Category, Iran National Selection Competition *Oct 2018*
- *16th place*, Football Category, Costa Rica International Finals *Dec 2017*
- *2nd place*, Football Category, Iran National Selection Competition *Oct 2017*

SKILLS

- **Programming Languages:** Python, C++, CUDA, R, SQL, Bash, Prolog
- **Machine Learning & Deep Learning:** PyTorch, PyTorch Geometric (PyG), TensorFlow, Scikit-Learn, HuggingFace, timm
- **Computer Vision & 3D:** OpenCV, Open3D, Kornia, scikit-image, lietorch, Gaussian Splatting, Ultralytics (YOLO), Stardist, OpenSlide, Roboflow
- **Robotics, SLAM & Simulation:** ROS 2, Gazebo, DROID-SLAM, OpenVINS, PX4, Kalibr
- **MLOps & Experimentation:** Hydra, Weights & Biases, TensorBoard
- **Data Science & Scientific Computing:** NumPy, Pandas, SciPy, Statsmodels, Jupyter
- **Infrastructure & DevOps:** Git, Docker, MySQL, \LaTeX
- **Spoken Languages:** English (fluent), Persian (fluent), French (conversational), German (basic), Dutch (basic)

CERTIFICATIONS

- **Google:** [Advanced Data Analytics; The Power of Statistics; Regression Analysis: Simplify Complex Data Relationships](#) *Oct 2025*
- **DeepLearning.AI:** [Generative Deep Learning with TensorFlow; Advanced Computer Vision with TensorFlow; Machine Learning](#) *Sep 2025*
- **Stanford Online:** [Advanced Learning Algorithms; Supervised Machine Learning: Regression and Classification; Unsupervised Learning, Recommenders, Reinforcement Learning](#) *Aug 2025*
- **Anthropic:** [AI Fluency Framework & Foundations; Model Context Protocol: Advanced Topics](#) *Aug 2025*
- **IBM:** [Tools for Data Science](#) *Aug 2025*