ANDREA SGOBBI
Computer Engineering MSc Student

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SUMMARY
Computer Science MSc Student at ETH Zürich. Passionate about Robotics, Machine Learning, and Mixed Reality, with a strong foundation in Rust and Python.

SKILLS
Languages: Rust, C/C++, Python, Java, C#, HTML, CSS, JavaScript, SQL.

Technologies: Linux, Docker, Kubernetes, Git, PyTorch, ROS, Unity.

EDUCATION

9/2023 - Current	**Computer Science MSc** Machine Intelligence Major, Data Management Systems Minor Current GPA: **5.78/6** Relevant Courses: *Deep Learning, Computer Vision, 3D Vision*	**ETH Zürich**
9/2020 - 7/2023	**Engineering of Computing Systems BSc** Graduated with **110 Cum Laude** and a **29.52/30** GPA. Engaged in course administration activities as a student representative. Relevant Courses: *Software Engineering, Robotics, Electronics*	**Politecnico di Milano**
9/2015 - 7/2020	**Liceo Scientifico** Graduated High School with **100/100**	**Liceo Statale M.G.Agnesi**

PROJECTS

Research

Semester Thesis: *"Sparse-View 3D Shape Generation"*
- Investigating 3D shape generation from multiview inputs using state-of-the-art ML models for geometry estimation of hand-scale objects.
- Experimenting with large-scale 3D dataset generation and processing.
- In collaboration with **Google Research** and the **Autonomous Systems Lab (ASL)** at ETH Zürich.

Research

"Holospot: Intuitive Object Manipulation via Mixed Reality Drag-and-Drop" — holospot.github.io
- Developed a novel system integrating a Mixed Reality headset with the Spot robot from Boston Dynamics.
- Enabled users to intuitively control the robot using simple drag-and-drop gestures to perform the complex task of grabbing and placing real-world objects.
- Submitted to ICRA 2025 in the Human-Centered Robotics and Automation category.
- In collaboration with the **Computer Vision and Geometry Lab (CVG)** at ETH Zürich.

Computer Chess

Carp — github.com/dede1751/carp
- A superhuman chess engine written in Rust, reached world **Top-10** in CCRL Blitz with 3508 ELO.
- Competed among the strongest engines in the world in various tournaments/rating lists such as Chess.com Computer Chess Championship, CCRL, CEGT, and IPManChess.
- Utilizes a combination of traditional heuristic tree search and a Neural Network trained through Reinforcement Learning with self-play data, showcasing a balanced integration of classic and modern chess strategies.

SW Engineering

MyShelfie — github.com/dede1751/ing-sw
- Collaborative project for the Software Engineering course at Politecnico di Milano.
- Developed a Java-based Client-Server application for the board game MyShelfie using the Model-View-Controller architecture.
- Led the design and planning phase using UML diagrams, employing enterprise best practices and design patterns.
- Emphasized rigorous testing for robust, reliable system performance.

AWARDS

2022	**Best Freshmen Award** Grant awarded to the best performing first year students at Politecnico di Milano.	**Politecnico di Milano**
2019	**Finalist at "Gran Premio della Matematica Applicata"** Participated in the final round of the Applied Mathematics competition hosted by UniCatt.	**Università Cattolica del Sacro Cuore**
2018	**"Snack News a Scuola" Winner** Collaborated in the production of the prize-winning divulgative video for the competition hosted by Bocconi and Corriere della Sera.	**Università Bocconi & Corriere della Sera**