



Ana Luiza Soares Mineiro Rocha
B.Sc. in Mechatronics Engineering
University of São Paulo

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EDUCATION AND CERTIFICATIONS

University of São Paulo, São Carlos (EESC - USP)

2021 - Present

B.Sc. in Mechatronics Engineering

EXPERIENCE

Undergraduate Researcher

2024 - Present

CRob (Robotics Center of USP)

São Carlos, BR

- Awarded a FAPESP scholarship for research on reinforcement learning frameworks for mobile robot navigation, focusing on agricultural applications.

Intern Researcher

2026 - Present

Distributed Autonomous Systems Laboratory (DASLAB) at UIUC

Urbana-Champaign, US

- Internship research project (Scholarship Holder at FAPESP) in the field of in the field of learning algorithms as locomotion controllers, focusing on legged robotics.

IT Intern

2025 - 2026

Peers Consulting + Technology

São Paulo, BR

- Developed and deployed intelligent AI agents within the Data Science team, leveraging Retrieval-Augmented Generation (RAG) architectures for advanced information processing.

Director of the Autonomous Mobile Robotics Center

2024

SEMEAR Group

São Carlos, BR

- Led the Autonomous Mobile Robotics Center within the SEMEAR group, an undergraduate student team competing in university competitions focused on real-world mobile robot solutions, and actively participated in the group from 2021 to 2025.

Teaching Assistant in Women in Engineering Project

2023 - 2024

EESC-USP

São Carlos, BR

- Instructed introductory electronics to female public high school students from the São Carlos region, actively fostering women's representation and engagement in STEM.

PUBLICATIONS

IEEE 22nd International Conference on Advanced Robotics (ICAR) Conference Article

2025

A. L. Mineiro*, F. Affonso*, & M. Becker. (2025). End-to-End Crop Row Navigation via LiDAR-Based Deep Reinforcement Learning. *22nd International Conference on Advanced Robotics (ICAR)*.

Preprint Conference Article

2026

F. Affonso, M. P. Angarola, A. L. Mineiro, A. Potnis, M. Becker, & G. Chowdhary. (2026). CTS-MoE: Implicit Policy Adaptation Enables Perceptive Locomotion on Discontinuous Terrain.

SKILLS

Languages: Portuguese (Native), English (Proficient)

Developer Tools: Git, GitHub, Docker, Weights & Biases (W&B), SLURM

Frameworks: IsaacSim/IsaacLab, PyTorch, Robot Operating System (ROS)

Areas of Interest: Robotics, Mobile Manipulation, Vision-Language Models, Task and Motion Planning (TAMP)