

ANDREA RITOSSA

Student Researcher and Software Engineer

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Education

MSc in Systems Control & Robotics

KTH - Royal Institute of Technology

Stockholm, Sweden

2024 - 2026

- **Research Project** at **RPL Lab**: built diffusion-based imitation learning policies in PyTorch; focused on clean experiments, reproducible training runs and evaluation
- **Team Project**: built a full ROS2 stack; led perception and integrated classical robotics heuristics with ML components

BSc in Computer Engineering

Alma Mater Studiorum - University of Bologna

Bologna, Italy

2021 - 2024

Built a strong foundation in computer engineering, software development and applied mathematics.

- **Thesis**: Experimental Study on Vision Language Models as image classifiers

Erasmus Program

NTNU - Norwegian University of Science and Technology

Trondheim, Norway

2022 - 2023

Strengthened time management, teamwork and communication in an international environment.

- **Teaching Assistant**: Supported 400+ students in Programming & Numerical Methods
- **Student Association**: Software for Fuel Fighter, a fuel-efficient car

Experience

Master's Thesis

Ericsson - R&D Department

Stockholm, Sweden

Spring 2026

(planned)

Planned topic: **Combinatorial Reinforcement Learning** for scalable, data-driven dynamic cell shaping.

Summer Intern

Robert Bosch - R&D Department

Lund, Sweden

Summer 2025

Built and shipped a penetration-testing web platform from idea to customer trials in ten weeks.

- Developed a full-stack web application to streamline security testing workflows; owned features end-to-end from design to deployment
- Built an in-app copilot with 10+ tools (ReAct), focusing on robust tool execution and clear UX in customer trials
- Integrated retrieval-augmented generation to make outputs context-aware and reduce repetitive manual work

Software Engineer Intern

MazeMap - Core Engineering

Trondheim, Norway

Summer 2023

Contributed to production-grade services in an enterprise-scale SaaS platform and deployed the main internal customer dashboard.

- Worked across Python and Java services; implemented and maintained REST APIs and database-backed features

Core Skills

- **Software Engineering**: programming, data structures, APIs, databases, version control (Git)
- **Learning-based Optimization**: reinforcement learning, deep learning
- **Applied Mathematics**: probability, statistics, optimization
- **Security Engineering**: security testing workflows, reliable automation and tooling

Technical Skills

Programming

Python

JavaScript

Java

C

Machine Learning

PyTorch, Hugging Face, basic JAX

Full Stack Development

Frontend: JS, TypeScript, React, React Native, CSS

Backend: FastAPI, Node.js, SQL, databases, vector DB

Agentic AI

ReAct, LangGraph, RAG

Languages

English (C1)

Swedish (A2)

Italian (native)