

Daniel San Jose Pro



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 daniel-san-jose-pro | Website

Summary

I am a master's student highly interested and talented in **robotics**. My main domains of interest lie at the intersection of **Control Theory** and **Machine Learning**. Additionally, I have experience working on larger robotics projects with **ROS2**. I have a great overview of the technologies and tools needed to develop and research in the field of robotics.

Professional Experience

Learning Systems and Robotics Lab, TUM ROBOTICS RESEARCH ASSISTANT

Munich, Germany
Apr 2025 - Now

- Design of force-based teleoperation systems for Franka Robotics FR3 manipulators
- Software Design ROS2 controllers and packages for learning-based policies on real hardware
- 3D Printing and design of grippers and teleoperation tools

ROS2 | C++ | Python | Teleoperation | 3D-Printing | Learning Based Control | Franka Robotics FR3

Fraunhofer Institute of Cognitive Systems (IKS) STUDENT RESEARCH ASSISTANT

Munich, Germany
May 2024 - Apr 2025

- Training and deployment of RL policies in simulation (MuJoCo)
- sim2real transfer on UR3 for pick-and-place tasks.

ROS2 | C++ | Python | Reinforcement Learning | MuJoCo | Universal Robots UR3

Angsa Robotics GmbH ROBOTICS ENGINEER

Munich, Germany
Apr 2021 - Dec 2023

- Development of the robot software stack based on ROS2 using Python, C++, and C for micro-ROS
- Deployment and testing of the robot in simulation and real environment
- Bachelor thesis in optimal coverage path planning
- Implementation of an intelligent object-picking process for an autonomous trash-collecting robot on ROS2 (python and C++)
- Development and Design of a CAN network for the driving system of the robot

ROS2 | C++ | Python | Navigation

Education

Technical University of Munich (TUM) MASTERS OF SCIENCE IN ELECTRICAL ENGINEERING AND COMPUTER SCIENCE

Munich, Germany
2018 - 2020

- Grade: 1.0
- Focus in Robotics, Control Theory, and Machine Learning.

ETH Zürich EXCHANGE SEMESTER IN ZÜRICH

Zürich, Switzerland
2021

- Auslandssemester: Theory of Robotics and Mechatronics, Dynamic Programming and Optimal Control, High Performance Computing in Science and Engineering, Introduction to Aircraft and Car Aerodynamics and Discrete and Statistical Signal Processing.

KTH Royal Institute of Technology EXCHANGE SEMESTER IN STOCKHOLM

Stockholm, Sweden
2023

- Erasmus exchange semester with focus on Control and Machine Learning. Courses in Model Predictive Control, Deep Learning, Applied Estimation and Reinforcement Learning. Average Grade: A.

Skills

Languages German | English | Spanish | French

Tech Stack ROS2 | Python | C++ | 3D-Printing/CAD | Docker | UNIX/Linux