Jon Arrizabalaga

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EDUCATION

Technical University of Munich — Munich, Germany
*PhD Student - Robotics; **Advisor:** Prof. Markus Ryll* — *November 2020 - Present*

KTH Royal Institute of Technology — Stockholm, Sweden
Master of Science - Mechatronics — *September 2018 - July 2020*

Shanghai Jiao Tong University - University of Michigan — Shanghai, China
Bachelor of Science - Mechanical Engineering — *September 2017 - January 2018*

University of Navarre — San Sebastian, Spain
Bachelor of Science - Mechanical Engineering — *September 2014 - July 2018*

EXPERIENCE

Robert Bosch GmbH - Corporate Research — Renningen, Germany
*MSc Thesis - Researcher; **Advisors:** Dr. Niels van Duijkeren, Dr. Ralph Lange* — *January 2020 - July 2020*

Porsche AG — Weissach, Germany
*Intern - Test Field; **Advisor:** Eric Preising* — *May 2019 - September 2019*

General Electric — Shanghai, China
Student Researcher (Part-time) — *September 2017 - January 2018*

PUBLICATIONS

- *Spatial Motion Planning with Pythagorean Hodograph curves*; J. Arrizabalaga, Markus Ryll; IEEE Conference on Decision and Control (CDC), Cancun, Mexico, 2022 — Paper, Video

- *Towards Time-Optimal Tunnel-Following for Quadrotors*; J. Arrizabalaga, Markus Ryll; IEEE International Conference on Robotics and Automation (ICRA), Philadelphia, USA, 2022 — Paper, Video

- *A caster-wheel-aware MPC-based motion planner for mobile robotics*; J. Arrizabalaga, Niels van Duijkeren, Markus Ryll, Ralph Lange; IEEE International Conference on Advanced Robotics (ICAR), Ljubljana, Slovenia, 2021 — Paper, Video

TEACHING

Engineering Mechanics I — Technical University of Munich
*Lecturer; **Enrolled students:** 200* — *Winter Semesters 21-22 and 22-23*

Introduction to ROS (Robot Operating System) — Technical University of Munich
*Lecturer; **Enrolled students:** 50* — *Summer Semester 21-22*

Dynamics Motion and Control — KTH Royal Institute of Technology
Assistant — *Winter Semester 19-20*

Robust Mechatronics — KTH Royal Institute of Technology
Assistant — *Winter Semester 19-20*

REVIEW ACTIVITIES

- IEEE Robotics and Automation Letters (RA-L)

- IEEE International Conference on Robotics and Automation (ICRA)

- IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)

EXTRACURRICULAR PROJECTS

The Juggling Robot Project — KTH Royal Institute of Technology
Software and Control Engineer; Video (year 21-22) — *Winter Semester 19-20*

Formula Student — University of Navarre
*Dynamics Engineer; **Team:** Tecnun eRacing* — *Seasons 16-17 and 17-18*

SKILLS

- **Programming**: Python, C/C++, ROS, Linux

- **Optimization**: CasADi, Acados, Gurobi, CVXPY

- **Artificial Intelligence**: Pytorch

- **Symbolic Mathematics**: Mathematica, Sympy