

David Oort Alonso

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Education

- **ETH Zurich** **Zurich, Switzerland**
Robotics, Systems and Control Master's Student *Sep 2020 - Present*
 - Teaching Assistant for [Autonomous Mobility on Demand](#), [Programming for Robotics](#), [Robotics Summer School](#)
- **Delft University of Technology** **Delft, The Netherlands**
B.Sc Aerospace Engineering *Sep 2016 – Sep 2019*
 - Graduated *cum laude* and with *Honours* (additional 20 ECTS). Average grade: **8.9/10** (top 1%)
 - Minor in Robotics at ETH Zurich
 - ◇ Winner of the 2018 [Polyhack](#) - HACK the future of the drone industry!

Experience

- **Graduate Student Researcher** | Robotics and Perception Group, UZH *Oct 2021 - Feb 2022*
Successfully applied Deep Reinforcement Learning to Collaborative Aerial Transportation by developing a dynamic model of a quadrotor and slung load system, as well as an OpenAI Gym-style vectorized training environment, and trained a centralized policy using Proximal Policy Optimization.
- **Junior Software Developer** | Verity *Feb 2021 - Aug 2021*
C++ and Python development for Verity's Industrial Indoor Drone System.
- **Autonomous Software Lead** | FSTD/MIT Driverless *Aug 2019 - Aug 2020*
Recruited, onboarded and [trained](#) a team of 12 software developers. Led all testing days of a fully autonomous, high-performance, electric race car. Developed a ROS simulator from scratch in Python and C++. I was part of the core development team (2nd biggest contributor) of the [FSDS Simulator](#), which formed the basis for the [FSONline Driverless Competition](#) and a [presentation](#) at FSG Academy.
- **Co-founder and Chief Engineer** | Project Talaria *Oct 2017 – Aug 2018*
Recruited and managed a large international team (40 students from 6 faculties). Represented the team externally in meetings with faculty advisors as well as with partner companies such as Lilium and NLR. Responsible for the engineering quality of the first VTOL prototype of the team. Speaker at the first public design presentation.

Grants and Scholarships Awarded

- **Excellence Scholarship and Opportunities Programme**, ETH Zurich *Mar 2020*
- **AstroCamp**, Centro de Astrofísica da Universidade do Porto *Aug 2016*
- **Research Science Institute (RSI)**, Massachusetts Institute of Technology (MIT) *Jun 2015 – Aug 2015*
- **Academic Year in Canada**, Fundación Amancio Ortega *Aug 2014 – Jun 2015*
- **Youth and Science Programme**, Fundació Catalunya La Pedrera *Jun 2014 – Aug 2016*

Scientific Articles

- **'Analytical aeroacoustic model for coaxial rotors in Urban Air Vehicles'** *Aug 2019*
Honours Programme Bachelor TU Delft. Mentor: Prof. Daniele Ragni. MATLAB tool on [Github](#).
- **'A search for orbital decay in close-in exoplanetary systems'** *Aug 2015*
MIT Kavli Institute for Astrophysics and Space Research. Mentor: Prof. Joshua Winn.

Skills

- **Software and computer skills:**
 - ROS, C++, Flutter & Dart, Python, Git, MATLAB & Simulink, Bash, Linux, Docker
- **Language skills:**
 - *Spanish, Catalan, English* (TOEFL: 117/120), *Dutch, German*