

## PERSONAL INFORMATION



## Dennis Benders

 Krimpen aan den IJssel, The Netherlands

 +31 (0)15 27 89874

 [d.benders@tudelft.nl](mailto:d.benders@tudelft.nl)

 [www.github.com/dbenders1](https://www.github.com/dbenders1)

 [www.linkedin.com/in/dennisbenders](https://www.linkedin.com/in/dennisbenders)

Gender Male | Date of birth 01/11/1997 | Nationality(-ies) Dutch

## WORK EXPERIENCE

2021 – Present

### PhD Cognitive Robotics

Delft University of Technology, Delft

*Research topic:* Safe Model Predictive Control (MPC) on drones

*Ancillary activities:* Department PhD representative, supervisor of bachelor and master students, mentor of master robotics students

*Topics of interest:* robotics, MPC, software engineering, sustainability

2017 – 2018

### Student coordinator Study Choice Check Electrical Engineering

Delft University of Technology, Delft

The Study Choice Check (SCC) is meant to provide high school students more in-depth information about the study. The student coordinator of the SCC has the following tasks:

- taking care of the communication from university to student for the SCC days of the study Electrical Engineering
- guiding the students at the SCC days
- designing the SCC online course

2016 – 2017

### Student mentor

Delft University of Technology, Delft

A student mentor is assigned to a group of students to provide a confidential atmosphere and help them in the early phase of the study:

- guiding students during their first days at the university
- organising weekly meetings to discuss recent topics and students' study progress
- being a continuously approachable person in case students encounter difficulties

## EDUCATION AND TRAINING

2018 – 2020

### Master Embedded Systems

Delft University of Technology, Delft

*Specialisation:* Systems and Control

*Graduation project:* Drone state estimation using brain-inspired parameter estimation theory

2015 – 2018

### Bachelor Electrical Engineering

Delft University of Technology, Delft

*Minor:* Responsible innovation

## PERSONAL SKILLS

Mother tongue(s)

Dutch

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
German	B2	C1	B2	B2	B2

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2: Proficient user  
Common European Framework of Reference (CEF) level

Communication skills

Team work: in teams (technical project teams as well as korfbal teams) I have always been the type of person who is really striving for good communication and interaction between everyone who is involved within the team and outside the team.

Mediating skills: as a trust pupil I was trained to lead discussions between people who were having problems with each other and to work towards a solution in a constructive way.

Organisational / managerial skills

When it comes to project work during my study, in most cases I am the one who takes the lead. This includes organising meetings, thinking about the software architecture, creating project plannings and working towards an atmosphere in which every team member is feeling comfortable.

Computer skills

The following skills are rated on a scale from 1 (basic level) to 3 (good level):

- programming languages: C/C++ (3), Python (3), ROS (3), Matlab (2)
- tools: Microsoft Office (3), L<sup>A</sup>T<sub>E</sub>X (3), Git (3), GanttProject (1)
- operating systems: Windows (3), Linux (3)

Driving licence

B, AM (2015)

## ADDITIONAL INFORMATION

Hobbies

- sports: playing korfbal, running and ice skating
- music: drumming and singing

## PUBLICATIONS

Pub1

Fred Bas, Ajith Anil Meera, Dennis Benders, and Martijn Wisse. Free energy principle for state and input estimation of a quadcopter flying in wind. In *2022 International Conference on Robotics and Automation (ICRA)*, pages 5389–5395. IEEE, 2022

Pub2

Anastasios Tsolakis, Dennis Benders, Oscar De Groot, Rudy R. Negenborn, Vasso Reppa, and Laura Ferranti. Colregs-aware trajectory optimization for autonomous surface vessels. *IFAC-PapersOnLine*, 55(31):269–274, 2022