



Paolo van Dommelen

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Robotics engineer from KU Leuven, currently working in software. I like fast-paced, intense projects where mechanical and software design overlap. From wearables and IOT to industrial and robotic technologies, I have experience across many of the subcomponents that make these systems work, and I'm looking for a role where I can put that to use.

EDUCATION

- **Master in Electromechanical Engineering Technology (Specialization Robotics)** Sep 2023 - July 2024
Group T, KU Leuven, Leuven, Belgium **Grade: Cum Laude**
- **Bachelor in Engineering Technology (Specialization Mechatronics)** Sep 2020 - Jun 2023
Group T, KU Leuven, Leuven, Belgium **Grade: Cum Fructu**

PROFESSIONAL EXPERIENCE

- **TMC Consultant as Software Automation Engineer** Aug 2024 - Current
TMC Belgium, Zaventem, Belgium | Tein Technology, Brussels, Belgium
Work as Software Developer using C# .NET, WPF and SQL with various communication frameworks (OPCUa, MQTT, etc..) and various IT principles to develop and maintain SCADA Software for the Flemish Government.
- **Student Embedded Support Engineer** Feb 2023 - Sept 2023
InfraSensing, Zaventem, Belgium
Worked on assembling, programming and calibrating sensors of various types such as FLIR cameras. Tested new kinds of gas and thermal sensors and reported findings to R&D to support product development decisions.

RESEARCH & ACADEMIC PROJECTS

- **Master's Thesis: Open-Source Data Glove Development Kit for XR Applications**
Development and testing of an open-source hardware and software development kit for a data glove for interfacing with ROS2 and Unity. Developed PCB blueprints, tested the accuracy of sensor fusion algorithms compared to state of the art data-glove SenseGlove Nova, and integrated communication via bluetooth and wifi.
- **Bachelor Thesis: Development of a parallel SCARA robot**
Conceptual development of a parallel SCARA robot. This included CAD designs of core hardware, component selection, and validation via FEM. Additionally we conducted simulation of the mechanics for motor selection, and development of a control system suited for pick-and place.

SKILLS

- **Programming & Software Development:** Python (Control, OpenCV, TensorFlow), C# (.NET, WPF, Unity), MSSQL, React, Git, Docker.
- **Robotics, Control & Embedded Systems:** ROS2, MATLAB+Simulink, Siemens PLCs, ABB RobotStudio, Control Systems Design, Arduino
- **Mechanical Design & Simulation:** Siemens NX CAD, FEM, Motion Control and Simulation (TIA Portal + NX MCD + Simit).
- **Industrial Hardware and Communications:** Wireshark, OPC-UA, MQTT, Node-RED
- **Languages:** Dutch (Mother Tongue), Italian (Mother Tongue), English (C1), French (C1)