

Etienne Bührle

+49-151-407-669-67 | buehrle@kit.edu | ebuehrle.github.io

EDUCATION

Ph.D. in Robotics at KIT MRT (Advisor: Christoph Stiller) ~2025

M.S. in Mechatronics and Information Technology (*summa cum laude*) GPA: 1.0/1.0 | Aug 2020

KARLSRUHE INSTITUTE OF TECHNOLOGY (KIT)

Coursework: Cognitive Systems, Numerics, Optimization, Nonlinear Model Predictive Control, Real-Time Systems

Exchange Year (Baden-Württemberg Program) GPA: 4.0/4.0 | Aug 2018 – May 2019

UNIVERSITY OF MASSACHUSETTS, USA

Coursework: Machine Learning, Artificial Intelligence, Algorithms, Theoretical Computer Science, Computer Vision, Computer Architecture and Design, Operating Systems

B.S. in Mechatronics and Information Technology (*with distinction*) GPA: 1.2/1.0 | Aug 2017

KARLSRUHE INSTITUTE OF TECHNOLOGY (KIT)

Coursework: Software Engineering, Robotics, Control Theory, Electronics, Classical Mechanics

Teaching Assistant: Information Technology Practicum

SKILLS

Languages: Python, C/C++, Java, Matlab, JavaScript, HTML/CSS (*proficient*). Julia, Bash (*knowledgeable*).

Frameworks: PyTorch, JAX, Tensorflow, Simulink, React (*proficient*). CasADi, ROS (*knowledgeable*).

EXPERIENCE

KITCAR STUDENT TEAM | CONTROLS ENGINEER Karlsruhe, DE | Jul 2019 – Dec 2019

- Implemented an Extended Kalman Filter for yaw rate estimation in **C++** and **ROS** for an autonomous vehicle model.

KIT IPEK | RESEARCH ASSISTANT Karlsruhe, DE | Sep 2017 - Mar 2018

- Designed and implemented controls for power tool testbeds in **Matlab/Simulink**.

EMMTRIX TECHNOLOGIES | SOFTWARE ENGINEER Karlsruhe, DE | Feb 2017 – Aug 2017

- Implemented algorithms for automatic code optimization using GeCoS and **Java**.

MECHATRONIC SYSTEMS AND PRODUCTS | SOFTWARE ENGINEER Karlsruhe, DE | Sep 2016 – Feb 2017

- Student team project in mechatronic systems development.
- Designed two cooperating robots using SysML, Creo Parametric and Simulink/Stateflow.

KIT ITIV | RESEARCH ASSISTANT Karlsruhe, DE | May 2016 – Jan 2017

- Miscellaneous embedded software development in **C/C++**.

PFORZHEIM UNIVERSITY | INTERN Pforzheim, DE | June 2014 – Aug 2014

- Designed and programmed a low-cost mobile robot [🔗](#). Taught basics of robotics and programming in C/C++ to a class of 10 K-12 students.

PROJECTS

BLOBLOCAR [🔗](#) JAVASCRIPT, HTML/CSS, BLOCKLY

A browser-based programming course for K-12 students. Used at Girls' Day 2021.

WILLIAM [🔗](#) GPT, JAVASCRIPT, HTML/CSS

Chat bot imitating Charles III William, historic founder of Karlsruhe. Winner of Hackathon X 2021 [🔗](#).

AWARDS

PROMOS Scholarship. Awarded by the German Academic Exchange Service (DAAD). 2018

IPP Award. Awarded by the *Institut für Prozessmesstechnik und Prozessleittechnik* for excellent bachelor degrees. 2017

DPG Buchpreis. Awarded by the German Physical Society (DPG) for excellent achievements in physics. 2014