Jannik Jorge Grothusen

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Education

University of California, Berkeley   **Aug 2022 – May 2023**
Concurrent Enrollment
- Invited by UC Berkeley's Department of Mechanical Engineering
- Awarded ISAP Scholarship by German Academic Exchange Service
- Coursework: CS 282A (Deep Neural Networks), CS 169 (Software Engineering), CS 188 (Artificial Intelligence), ME 231A (Advanced Control Design I), UGBA 5 (Entrepreneurship)

Hamburg University of Technology   **Apr 2022 - present**
M.Sc. Mechatronics

Hamburg University of Technology   **Oct 2018 – Mar 2022**
B.Sc. General Engineering Science
- Standard period of study, Class rank: 15 of 75
- Thesis: "Motion Planning and Control for Autonomous Grasping with an Underwater Robot"; developed a control architecture based on guidance using the AprilTag visual fiducial system and custom path planning and following algorithms, implemented using Python and ROS, tested on a real robot

Experience

GoodBytz GmbH   **Mar 2022 – Jul 2022**
Software Engineering Intern
- Designed motion sequences for cobots (Universal Robots UR series and Fanuc CRX series)
- Set up a lightweight Kubernetes (K3s) cluster for orchestration of microservices on IoT modules
- Developed and deployed microservices using Python, Flask, REST API, Docker and GitHub Actions CI
- Further developed main user interface (JavaScript, Angular)

Deutsches Elektronen-Synchrotron (DESY)   **Dec 2021 – Feb 2022**
Machine Learning Intern in the "Autonomous Accelerator" Project
- Developed new method for beam parameter detection with artificial neural networks using TensorFlow, Keras and Weights & Biases (trained on DESY's Maxwell HPC using Slurm)
- Implemented a state estimator to determine unknown system parameters of a particle accelerator

Institute of Mechanics and Ocean Engineering, Hamburg University of Technology   **Oct 2020 – Jul 2021**
Student Tutor for Mechanics I & IV

Extracurricular Activities

Startup Port Hamburg   **Nov 2021 – Mar 2022**
Certificate program: Interdisciplinary Innovation & Entrepreneurship (INTIE)

Ideenschmiede Hamburg   **Mar 2021 – Jul 2022**
Co-founder and Chairman
- Built a student platform, which promotes the exchange between interested parties in the field of innovation and entrepreneurship through workshops and other events with 50+ participants

Hasso Plattner Institute of Design, Stanford University   **Jul 2020 – Mar 2021**
University Innovation Fellow
- Six-week training on design thinking and lean startup followed by analysis and improvement of the innovation ecosystem of the university

Student Council, Hamburg University of Technology   **Dec 2018 – Dec 2021**
Chairman since Dec 2019, elected member since Dec 2018

Skills

Software
- Python, JavaScript, Ruby, Git
- Robot Operating System
- PyTorch, TensorFlow, Keras, Weights & Biases
- MATLAB, Simulink
- CAD-Programs
- Adobe Creative Suite

Languages
- German (C2), English (C1)

Hobbies
- Graphic design und video editing
- Competitive ballroom dancing
- Weight training