

# 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 169 (Software Engineering), CS 188 (Artificial Intelligence), ME 231 (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

- Git, Python, JavaScript, Robot Operating System
- TensorFlow, Keras, Weights & Biases
- MATLAB, Simulink
- CAD-Programs
- Adobe Creative Suite
- Word, Excel, PowerPoint

### Languages

- German (C2), English (C1)

### Hobbies

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