MARVIN STÜDE

Robotics Engineer & PhD Candidate

@ m.stuede@posteo.de   ✉ Dieterichsstr. 9, 30159 Hannover   📍 Germany   * 04.04.1992
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EXPERIENCE

Research Associate   Institute of Mechatronic Systems

📅 March 2018 – Ongoing   📍 Hannover, Germany

- Project and team leader for developing a social service robot for long-term autonomous info-terminal and guiding services. Supervised 27 student theses.
- **Technical focus**: SLAM, path planning, task modeling, people perception, Bayesian learning, mechanical and electronics design
- **Teaching**: *Robotics I*, *RobotChallenge*, *Hackathon for Mobile Robotics*

Internship: Quality Management and Methods   Bosch Rexroth

📅 Oct 2014 – March 2015   📍 Xi'an, China

- Introduced Layered Process Audit for plant-wide production auditing
- Project lead: Quality enhancement of frequency converter production (FMEA, 6-Sigma)
- Established regular English courses outside working hours for the staff

Student Assistant   Institute of Mechatronic Systems

📅 Apr 2016 – Jan 2017   📍 Hannover, Germany

- Developed computational models, path planning and torque control algorithms for parallel robots, cobots and mobile manipulators (e.g. KUKA KMR iiwa, KUKA iiwa, KUKA youBot, Franka Emika Panda, Codian Delta Robot)

EDUCATION

PhD in Mobile Robotics   Leibniz University Hannover

📅 March 2018 – Ongoing   📍 Hannover, Germany

Dissertation: Environment and Task Modeling of Long-Term Autonomous Service Robots (working title)
Relevant methods: Graph-based Visual/Lidar SLAM, Gaussian Process Regression, Behavior Trees

Study Abroad   University of Auckland

📅 Feb 2017 – May 2017   📍 Auckland, New Zealand

B.Sc. and M.Sc. in Mechatronics   Leibniz University Hannover

📅 Oct 2011 – Feb 2018   📍 Hannover, Germany

Major: Industrial & Service Robotics
Final grade: 1.2 (*excellent*, equivalent GPA: 3.8. Top 3% of class.)
Master thesis: Autonomous Opening and Traversal of Doors by a Redundant Mobile Manipulator (Grade: 1.0, equivalent to A+)

High school   BBS Cuxhaven

📅 Jul 2008 – Apr 2011   📍 Cuxhaven, Germany

Final grade: 1.4 (equivalent GPA: 3.6. Graduated top of class.)

PUBLICATIONS (SELECTION)

- **Non-Parametric Modeling of Spatio-Temporal Human Activity Based on Mobile Robot Observations**
  M. Stuede and M. Schappler
  IEEE International Conference on Intelligent Robots and Systems (IROS), 2022
- **Sobi: An Interactive Social Service Robot for Long-Term Autonomy in Open Environments**
  M. Stuede, K. Westermann, M. Schappler, and S. Spindeldreier
  10th European Conference on Mobile Robotics (ECMR), 2021
- **Map Management Approach for SLAM in Large-Scale Indoor and Outdoor Areas**
  SFG Ehlers, M. Stuede, K. Nuelle and T. Ortmaier
  IEEE International Conference on Robotics and Automation (ICRA), 2020

SOFTWARE

C++, Python, ROS
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Java, Solidworks, Inventor, MATLAB, Git, LaTeX
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Docker, Gitlab CI/CD, EAGLE, MongoDB, JavaScript, Unity/C#, OpenCV, PCL, Tensorflow, EN 61131, MS Office
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LANGUAGES

German   ●●●●●
English   ●●●●◐
Chinese   ●●○○○

ACHIEVEMENTS

Dr. Jürgen Ulderup Award: For outstanding study achievements

VDI Technology Award: Awarded to engineers who have made an outstanding contribution to solving technical problems

Dream NEW Scholarship: For outstanding EU students to study abroad in New Zealand

REFEREES

Prof.-Dr. Ing. Tobias Ortmaier
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