
Education

- 07/19 – today **Ph.D.**,
Bosch Center for Artificial Intelligence & Institute of Neural Information Processing, Ulm University, Renningen, Germany
Topic: Dense Visual Feature Learning for Robotics
- 10/14 – 08/15 **M.Sc. in Electrical Engineering and Information Technology**,
10/16 – 04/18 *TU München, Munich, Germany*,
GPA: 1.3 (on a scale from 1 to 5, with 1 being the highest score)
- Master's Thesis** Title: "A Simple But Universal Factorization Model for Knowledge Graph Completion".
- 02/15 – 07/17 **Honours Degree in Technology Management**,
Center for Digital Technology and Management, Munich, Germany,
GPA: 1.3 (on a scale from 1 to 5, with 1 being the highest score)
Add-on study program, with a focus on trend research and ideation of business ideas, new product development and prototyping, and consulting on strategic endeavors. 25 students selected per semester (<8% acceptance rate).
- 10/10 – 11/13 **B.Sc. in Electrical Engineering and Information Technology**,
TU München, Munich, Germany,
GPA: 1.9 (on a scale from 1 to 5, with 1 being the highest score)
- Bachelor's Thesis** Title: "Development of a Depth-Augmented Dynamic Vision Sensor for 3D SLAM". Co-authored 2014 ICRA paper.

Work and Research Experience (selection)

- 08/18 – 06/19 **Software Engineer for Computer Vision**, *NavVis GmbH, Munich, Germany*
Implementation of surface reconstruction algorithms and evaluation framework. Conducting product research through customer and expert interviews. (part-time)
- 11/17 – 04/18 **Master's Thesis Student**, *Mercateo GmbH, Munich, Germany*
Research on representation learning of knowledge graphs.
- 03/17 – 08/17 **Robotist Freelancer**, *Robotise, Munich, Germany*
Consulting, perception algorithm development, managing code integration and continuous testing, managing ROS package release process.
- 01/16 – 08/16 **Research Intern**, *NTT Communication Science Laboratories, Honatsugi, Japan*
Research on human-curated cross-modal feature learning. Co-authored 2018 AAAI paper.
- 10/14 – 07/15 **Research Assistant**, *NavVis GmbH, Munich, Germany*
Development of algorithms for the removal of artifacts in point clouds using SLAM.
- 01/14 – 06/14 **Research Intern**, *Siemens AG, Siemens Corporate Research, Princeton, USA*
Implementation of 3D reconstruction workflow (feature-based graph-SLAM) with out-of-core bundle adjustment; Implementation and evaluation of depth camera calibration techniques; Porting and refactoring of C code to C++.
- 10/13 – 12/13 **Research Assistant**, *TU München, Neuroscientific System Theory, Munich, Germany*
Extension of an event-based SLAM framework to work in real-time on embedded, low-power ARM hardware (e.g., Rockchip devices), streaming of data via UDP, and visualization on a client device.
- 09/11 – 11/11 **Intern**, *Siemens AG, I DT MC MF-M COC LMS LP, Munich*
Design and implementation of a test series evaluation tool in MATLAB (>20x speed improvement over existing solution); Implementation of a wrapper library for Siemens Starter in C# and integration with LabVIEW.
- 07/09 – 03/10 **Private First Class (OR-3)**, *3. FüUstgBtl 293, Murnau am Staffelsee, Germany*
Mandatory military service. Trained for SATCOM and TETRAPOL.

Publications

- [1] Christian Graf et al. "Learning Dense Visual Descriptors using Image Augmentations for Robot Manipulation Tasks". In: *6th Annual Conference on Robot Learning*.
- [2] David B. Adrian et al. "Efficient and Robust Training of Dense Object Nets for Multi-Object Robot Manipulation". In: *2022 International Conference on Robotics and Automation (ICRA)*. 2022, pp. 1562–1568.
- [3] Yusuke Mukuta et al. "Weakly supervised collective feature learning from curated media". In: *The Thirty-Second AAAI Conference on Artificial Intelligence (AAAI-18)*. 2018.
- [4] Irman Abdic et al. *The Future of Education: Trend Report 2015*. Center for Digital Technology and Management, 2015.
- [5] David Weikersdorfer et al. "Event-based 3D SLAM with a depth-augmented dynamic vision sensor". In: *Robotics and Automation (ICRA), 2014 IEEE International Conference on*. IEEE, 2014, pp. 359–364.

Competitions, Awards, and Scholarships

- 09/17 – 10/17 **1st Place in VW Data:Lab Deep Learning and Robotics Challenge**, Volkswagen AG, Munich
Team challenge entailed building a fully autonomous Lego brick sorting robot from scratch.
- 06/16 **Abroad Scholarship**, Heinrich und Lotte Mühlhens-Stiftung, Munich
Awarded to students with excellent grades and social engagement at/outside of university.
- 08/15 – 09/16 **Vulcanus in Japan**, EU-Japan Centre for Industrial Cooperation, Japan
Accepted as 2015-16 fellow (4% acceptance rate, >1000 applicants EU-wide).
- 11/12 – 11/13 **Siemens-Mentoring-Program**, Siemens AG / TU München, Munich
The one-year program offers a Senior Manager as mentor, fireside chats, and a variety of events (~15 students per year).
- 10/10 – 07/11 **2nd Place in 'AdvElsor' Competition**, TU München, Munich
Managed IT sub-team during the final project of building an Autonomous Rubik's-Cube-solving robot.

Leadership activities

- 10/12 – 07/15 **Member**, Federal Agency for Technical Relief (THW), Munich
Technical relief in Germany as part of national civil protection measures.
- 03/12 – 11/13 **Mentor**, Mentoring for International eXchange Students, TU München
Mentor and contact person for incoming foreign students of the faculty.
- 01/12 – 01/13 **Member of the board**, Student association of the Department of Electrical Engineering and Information Technology, TU München
Management of the registered association, including our business branch. Organized the introduction of a new soft-skill program available to all students as part of the regular degree curriculum.
- 03/11 – 07/15 **Student representative**, Department of Electrical Engineering and Information Technology, TU München
Regular member of the *Studienkommission* (commission on study affairs) and member of the working committee of the master reform.

Computer Literacy and Open-Source Contributions

Operating Systems	Linux (x86_64/ARM), Windows	Office	LaTeX, MS Office, OpenOffice
Programming Languages	C/C++, Python, MATLAB	Libraries	PyTorch/Tensorflow, PCL, OpenCV, ROS
GitHub	github.com/dbadrian		

Languages

German	Native	English	Business (C2)
Japanese	Lower Intermediate (A2-B1)		