

Bernhard Jaeger

✉ bernhard.jaeger@uni-tuebingen.de

📍 Tübingen, Germany

🌐 <https://kait0.github.io>

🎂 Born Feb 1997 in Biberach, Germany.

🇩🇪 German Citizen.

Education

Apr 2022 – Now Tübingen, Germany	University of Tübingen <i>PhD in Computer Science</i> <ul style="list-style-type: none">• <i>Thesis project:</i> Towards End-To-End Autonomous Driving• <i>Advisor:</i> Prof. Dr.-Ing. Andreas Geiger• <i>Program:</i> International Max Planck Research School for Intelligent Systems (IMPRS-IS)
Oct 2019 – Sep 2021 Tübingen, Germany	University of Tübingen <i>Master of Science in Computer Science</i> <ul style="list-style-type: none">• <i>Thesis project:</i> Expert Drivers for Autonomous Driving (Grade 1.0)• <i>Advisor:</i> Prof. Dr.-Ing. Andreas Geiger• <i>Overall Grade:</i> 1.36
Oct 2015 – Aug 2018 Munich, Germany	Technical University of Munich (TUM) <i>Bachelor of Science in Informatics: Games Engineering</i> <ul style="list-style-type: none">• <i>Thesis project:</i> Measuring Google QUIC Connection Establishment Times (Grade 1.0)• <i>Advisor:</i> Prof. Dr.-Ing. Jörg Ott• <i>Overall Grade:</i> 2.4
Sep 2007 – Jun 2015 Biberach, Germany	Pestalozzi Gymnasium Biberach <i>Abitur (Overall Grade: 1.7)</i>

Professional Experience

Apr 2022 – Now Tübingen, Germany	University of Tübingen <i>Research Associate, Ph.D. Candidate</i> <p>My research focuses on end-to-end autonomous driving, imitation learning, reinforcement learning and computer vision.</p> <ul style="list-style-type: none">• <i>Thesis project:</i> Towards End-To-End Autonomous Driving• <i>Advisor:</i> Prof. Dr.-Ing. Andreas Geiger
Jul 2022 – May 2023 Tübingen, Germany	Max Planck Institute for Intelligent Systems <i>Guest Scientist</i>
Nov 2021 – Mar 2022 Tübingen, Germany	University of Tübingen <i>Research Assistant</i> <ul style="list-style-type: none">• <i>Advisor:</i> Prof. Dr.-Ing. Andreas Geiger
Oct 2018 – Oct 2019 Reutlingen, Germany	Ferchau GmbH <i>Software Developer</i> <p>During my time in Reutlingen, I developed the graphics software of an embedded system that was deployed in production as part of a luxury car. The code was written in C.</p>

Supervision

Apr 2022 – Now
Tübingen, Germany

University of Tübingen

Master Thesis Advisor

- Oct 2023 – Now Maximilian Hilbert
- May 2022 – Nov 2022 Partha Ghosh (Thesis: Exploring Semi-supervised and Self-supervised Learning Approaches in Autonomous Driving)

Teaching Experience

Apr 2022 – Now
Tübingen, Germany

University of Tübingen

Lead Teaching Assistant

- Apr 2023 – Jul 2023 Organisation eines Alumni-Tages der Informatik (seminar)

Teaching Assistant

- Oct 2023 – Feb 2024 Self-Driving Cars (lecture)
- Oct 2022 – Feb 2023 Self-Driving Cars (lecture)
- Apr 2022 – Jul 2022 Organisation eines Alumni-Tages der Informatik (seminar)

Oct 2017 – Feb 2018,
Munich Germany

Technical University of Munich (TUM)

Teaching Assistant

- Betriebssysteme und hardwarenahe Programmierung (lecture)

Oct 2016 – Feb 2017,
Munich Germany

Technical University of Munich (TUM)

Teaching Assistant

- Grundlagen Datenbanken (lecture)

Academic Activities

Invited Talks

- On output representations for end-to-end driving. Machine learning for Autonomous Driving, NeurIPS Workshop 2022

Reviewer:

- IEEE Transactions on Pattern Analysis and Machine Intelligence

Technical Skills

Languages: German (native), English (proficient)

Programming: Python, C, C++, PyTorch, Numpy, CARLA

Awards

2023 | Our approach Zero-shot TF++ ranked **second** in the 2023 CARLA AD Challenge on the sensor track.

2022 | Our approach Map TF++ ranked **first** in the 2022 CARLA AD Challenge on the map track.

2021 | Our approach TransFuser ranked **second** in the 2021 CARLA AD Challenge on the map track.

Publications

- 2024 | [1] T. Miyato, **B. Jaeger**, M. Welling, and A. Geiger, “Gta: A geometry-aware attention mechanism for multi-view transformers,” in *Proc. of the International Conf. on Learning Representations (ICLR)*, 2024.
- 2023 | [2] **B. Jaeger** and A. Geiger, “An invitation to deep reinforcement learning,” *arXiv*, vol. 2312.08365, 2023.
- [3] **B. Jaeger**, K. Chitta, and A. Geiger, “Hidden biases of end-to-end driving models,” in *Proc. of the IEEE International Conf. on Computer Vision (ICCV)*, 2023.
- [4] K. Chitta, A. Prakash, **B. Jaeger**, Z. Yu, K. Renz, and A. Geiger, “Transfuser: Imitation with transformer-based sensor fusion for autonomous driving,” *Transactions on Pattern Analysis and Machine Intelligence (T-PAMI)*, 2023.
- [5] L. Chen, P. Wu, K. Chitta, **B. Jaeger**, A. Geiger, and H. Li, “End-to-end autonomous driving: Challenges and frontiers,” *arXiv*, vol. 2306.16927, 2023.