Oliver **Lemke**

M.Sc. Computer Science | ETH Zürich   Fastlane Scholar | BMW Group

About me

Highly motivated, and dedicated graduate student. I focus on Machine Intelligence and Computer Vision, with special emphasis on 3D Vision and Autonomous Cars. Excellent organization, communication, and coordination skills acquired through a variety of extra-curricular activities and volunteering experience. Able to effectively self-manage during independent projects.

Details

- 2000-02-05
- ✉ lemke.oliver@icloud.com
- 📍 Munich, Germany
- in Oliver Lemke
- 🪪 oliver-lemke.github.io/

Languages

- 🇩🇪 German - Native Language
- 🇬🇧 English - C2 Proficiency

EDUCATION

09/22-Now
ETH

M.Sc. Computer Science 📍 Zürich, Switzerland
ETH Zürich
Major: Machine Intelligence
Current Grade: 5.7, top 10% of students
Except of classes: Computer Vision, 3D Vision, Machine Perception, CV for Autonomous Cars, Deep Learning

09/19-08/22
TUM

B.Sc. Computer Science 📍 München, Germany
Technical University of Munich
Final Grade: 1.2 (high distinction), top 2% of students
Focus: Machine Learning and Computer Vision
Thesis: Comparison of Vision-based State Representation Learning Algorithms for Reinforcement Learning of Robotic Reaching Tasks (Grade: 1.0)

WORK EXPERIENCE

10/22-Now
BMW

Scholarship Holder (Fastlane) 📍 München, Germany
BMW Group
Gained practical experience in various departments. Organization of and participation in workshops and talks on technological and professional development.

- 12/22 - 03/23: Intelligent Personal Assistant
- 04/24 - 09/24: Perception and Prediction Research Group

09/23-03/24
ETH

Research Assistant 📍 Zürich, Switzerland
ETH Zürich
Research assistant in the *Computer Vision and Geometry Group* working on the intersection of modern machine perception models and robotics. Supervised by Francis Engelmann, Hermann Blum, and Marc Pollefeys. Resulted in the publication of *Spot-Compose*.

SCIENTIFIC WORK

Paper
2024

Spot-Compose: A Framework for Open-Vocabulary Object Retrieval and Drawer Manipulation in Point Clouds. Oliver Lemke, Zuria Bauer, René Zurbrügg, Marc Pollefeys, Francis Engelmann, Hermann Blum. *ICRA 2024 Workshops.*
🏆 Best Paper Award
also demo'd at *3DV* Conference (2024) in Davos, Switzerland

Bachelor Thesis
2022

Comparison of Vision-based State Representation Learning Algorithms for Reinforcement Learning of Robotic Reaching Tasks. Oliver Lemke, Josip Josifovski, Alois Knoll

Seminar Paper
2022

Survey on Machine Learning-based Autoscaling in Cloud Computing Environments. Oliver Lemke, Sayantini Majumdar. *Proceedings of the Seminar Innovative Internet Technologies and Mobile Communications (IITM)*

Soft Skills and Strengths

Analytical Thinking   Highly Organized

Efficient   Hard Working

Excellent Communication Skills   Disciplined

Dependable   Reliable

Other Interests

- Gym 🏋️
- Volleyball 🏐
- PC Building 🖌️
- Reading 📖
- Hiking 🗺️

HONORS AND AWARDS

best.in.tum	best.in.tum is a special program by the TUM Department of Informatics that promotes the **top 2%** of all Informatics students based on academic results. It is designed to confront the best students with open and especially difficult issues in Informatics, while opening up opportunities for discussion and research.
Best Paper Award	Awarded for the paper "Spot-Compose: A Framework for Open-Vocabulary Object Retrieval and Drawer Manipulation in Point Clouds" in the Mobile Manipulation Workshop at ICRA.

EXTRA-CURRICULAR ACTIVITIES

2022	**Summer School** 📍 Sarntal, Italy **Technical University of Munich** **Topic:** Deep Learning in Image and Video Processing Summer School for the introduction of particularly motivated and gifted students to advanced fields of research. Worked on autonomously steering a toy car with video input.
09/15-06/18	**Max Born Academy** 📍 Germering, Germany **Max-Born-Gymnasium Germering** Extra-curricular lectures, workshops, and excursions in a variety of technical, societal, and cultural fields of study for the development of particularly gifted students.

Other Activities

09/18-07/19	**Work and Travel** 📍 New Zealand **Various Companies** Lived, worked, and travelled in New Zealand for 9 months with a Work-and-Travel visa. A trip, which I undertook and financed alone, by working as a receptionist, farm hand, or waiter (among other jobs).

PROFESSIONAL SKILLS

Machine Learning	**Python**: *Expert* **PyTorch**: *Expert* **NumPy**: *Advanced* **Pandas, OpenAI Gym, Stable-Baselines, Ray**: *Intermediate*
Data Management	**SQL** : *Advanced* **PySpark**: *Intermediate*

REFERENCES

Francis Engelmann	**Supervisor & Co-Author Spot-Compose** *Postdoctoral Researcher, ETH Zürich, Google* ✉ francis.engelmann@ai.ethz.ch
Hermann Blum	**Supervisor & Co-Author Spot-Compose** *Postdoctoral Researcher, ETH Zürich* ✉ hermann.blum@inf.ethz.ch
Josip Josifovski	**Bachelor Thesis Advisor** *PhD Candidate, Technical University of Munich* ✉ josip.josifovski@tum.de