

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
 Oliver Lemke
 oliver-lemke.github.io/

Languages

German - Native Language
 English - C2 Proficiency

WORK EXPERIENCE

09/23-03/24



Research Assistant
ETH Zürich

Zürich, Switzerland

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

10/22-Now



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 Group
- 04/24 - 09/24: Perception and Prediction Research Group

EDUCATION

09/22-Now



M.Sc. Computer Science
ETH Zürich

Zürich, Switzerland

Major: Machine Intelligence

Current Grade: 5.7, top 10% of students

Excerpt of classes: Computer Vision, 3D Vision, Machine Perception, CV for Autonomous Cars, Deep Learning

09/19-08/22



B.Sc. Computer Science
Technical University of Munich

München, Germany

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)

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

Paper

2024

Entropy Aware Message Passing in Graph Neural Networks. Philipp Nazari*, Oliver Lemke*, Davide Guidobene*, Artiom Gesp*. *arXiv preprint arXiv:2403.04636*

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 🏋️

• Reading 📖

• Volleyball 🏐

• Hiking 🧭

• PC Building 🛠️

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).
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PROFESSIONAL SKILLS

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

REFERENCES

Francis Engelmann	Supervisor & Co-Author Spot-Compose <i>Postdoctoral Researcher, ETH Zürich, Google</i> <i>Now: Postdoctoral Researcher, Stanford University</i> ✉️ francis.engelmann@ai.ethz.ch
Hermann Blum	Supervisor & Co-Author Spot-Compose <i>Postdoctoral Researcher, ETH Zürich</i> <i>Now: Junior Professor, Lamarr Institute / Uni Bonn</i> ✉️ hermann.blum@inf.ethz.ch
Josip Josifovski	Bachelor Thesis Advisor <i>PhD Candidate, Technical University of Munich</i> ✉️ josip.josifovski@tum.de