

# Stefan Ott

## Senior Machine Learning Engineer

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## EXPERIENCE

### Senior Machine Learning Engineer

#### Robert Bosch GmbH 🌐

📅 Apr 2023 - Present

📍 Stuttgart, Germany

- Led use-case based model evaluation and established regular quantitative assessments for video perception models in a team of 10 people.
- Reduced perception model evaluation time by 45% in internal deep learning framework using Python and Pytorch.
- Continuous performance improvements of semantic segmentation and object detection networks.

### Research Intern - Object Detection

#### Bosch Center for Artificial Intelligence 🌐

📅 Jan 2022 - Jun 2022

📍 Renningen, Germany

- Developed similarity based learning method for two-stage CNN detectors increasing rare object detection rate by 10% on a long-tail dataset.
- Filed patent for the novel similarity few-shot method on how to effectively train CNNs in low data regimes.

### Software Engineer - LiDAR Base Software

#### Robert Bosch GmbH

📅 Oct 2018 - Sep 2020

📍 Schwieberdingen, Germany

- Developed software variant for HiL testing that increased sensor system quality assurance speed by 55%.
- Enhanced LiDAR base software state handling to optimize sensor performance using C/C++.

### Research Intern - Automated Driving

#### Robert Bosch GmbH

📅 Jan 2018 - Aug 2018

📍 Leonberg, Germany

- Development of a criticality metric for situation analysis in automated driving for the project TANGO.

### Research Intern - Language Processing

#### Robert Bosch LLC

📅 May 2017 - Aug 2017

📍 Palo Alto, California, USA

- Fine-tuned interview speech processing systems using Hidden Markov Models for adaptation to the German language.

## SKILLS

**Programming languages:** Python (2015-present), C (2015-2021), C++ (2018-2022)

**Deep learning:** PyTorch (2020-present), Tensorflow (2022-2024), Scikit (2020-present)

**Others:** Git (2015-present), Docker (2020-present), Azure Cloud & Databricks(2022-present), Linux (2015-present)

## EDUCATION

### Master of Science, Computer Science

#### University of Stuttgart

📅 Oct 2020 - Mar 2023

📍 Stuttgart, Germany

- Specialized on intelligent systems (DL, ML, RL), computer vision, software engineering and architecture
- Semester abroad: University of Melbourne (May-Dec 2022)
- CGPA: 1.2 (German system, Best grade possible: 1.0)

### Bachelor of Engineering, Computer Science

#### Baden-Württemberg Cooperative State University

📅 Oct 2015 - Sep 2018

📍 Stuttgart, Germany

- Cooperative study program with Robert Bosch GmbH R&D
- CGPA: 1.9 (German system)

### A-levels

#### Gymnasium Gammertingen

📅 Sep 2007 - Jun 2015

📍 Gammertingen, Germany

- Majors: physics, chemistry, mathematics, computer science
- CGPA: 1.9 (German system)

## PROJECTS

### Active learning dashboard

🔧 Python, deep learning

🔗 ActiveLearningProject

- Open source contribution of deep active learner module to modAL (\*2,193 stars).
- Implemented monte-carlo dropout based active learning methods.

### Autonomous 1:10 vehicle

🔧 C++, OpenCV

🔗 CaroloCar

- Developed camera lane processing & driving tasks.
- Integrated perception stack on Nvidia Jetson.

### FIDE chess

🔧 Python, Pygame, Search

🔗 chess

- Implemented FIDE chess rules in Python using Pygame as visualization engine.
- Enabled rule validation with Perft and added Minimax-search.

## OTHER INFORMATION

**Languages:** English (C2), German (Native), Spanish (A2)

**Interests:** Chess, Piano, Scuba diving

**Volunteering:** Scouts group (DPSG), Local youth club

**Scholarships:** National german scholarship 2021&2022, DAAD PROMOS scholarship 2022)