

# Zhejun Zhang

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## Technical Skills

### *Scientific Skills*

Deep/Machine Learning

Computer Vision

Control Theory

Information Theory

Probability/Statistics

### *Programming Languages*

Python, C++

LaTeX, MatLab, R

### *Software & Tools*

Pytorch, Tensorflow

OpenCV, ROS, Eigen

Gazebo, CARLA

AWS, Slurm, LSF

Git, Bash, Docker

MS-Office, Video Editing

## Languages

Chinese	native
English	proficient
German	proficient

## Awards

### 2019 Willi Studer Prize

Best Master Student  
in Dept. of ITET, ETH Zurich.

### 2016 ESOP Scholarship

For MSc at ETH Zurich.

### 2015 BSc with High Distinction

Best Bachelor Student  
in Dept. of EI, TU Munich.

### 2012 DAAD Full Scholarship

For BSc at TU Munich.

## Education

### 2020 – now Ph.D. at ETH Zurich, Switzerland

Supervised by Prof. Luc Van Gool at Computer Vision Lab.

- Toyota Research on Automated Cars in Europe (TRACE).
- Focus on end-to-end driving and neural simulation.
- Policy learning, IL, RL, world models and neural rendering.

### 2016 – 2019 MSc at ETH Zurich, Switzerland

Dept. of Information Technology and Electrical Engineering.

- Focus on system & control, computer vision & deep learning.
- Top 1 in the ranking (Grade: 5.93/6.0).

### 2015 – 2016 MSc at TU Munich, Germany

Dept. of Electrical and Computer Engineering.

- Unfinished, ended without degree.
- Grade of the 1st year: 1.0/1.0.

### 2012 – 2015 BSc at TU Munich, Germany

Dept. of Electrical and Computer Engineering.

- Focus on control & communication engineering.
- Top 1 in the ranking (Grade: 1.03/1.0).

### 2006 – 2012 Shanghai Foreign Language School, China

- German as the first foreign language (DSD II, C1 level).

## Experience

### 2019 R&D Engineer at Seervision AG, Zurich.

Develop cinematographic tracking algorithms for PTZ cameras.  
CV and robotics: perception, estimation and optimization.

### 2018 Master Thesis at IFA, ETH Zurich and Seervision AG.

Supervised by Prof. John Lygeros and Dr. Nikos Kariotoglou.  
Learning Cinematographic Motion Control from Videos.

### 2017 Research Assistant at Seervision AG, Zurich.

Prototype learning-based tracking algorithms for pan-tilt cameras.

### 2017 Semester Project at IDSC, ETH Zurich.

Improving the trajectory tracking of a parametrized MPC.

### 2016 Semester Project at IFA, ETH Zurich.

Object tracking on Arduino and a commercial gimbal.

### 2015 Bachelor Thesis at TU Munich.

Online Gaussian process regression parametrized by dual quaternions.

### 2014 Semester Project at TU Munich.

Real-time rendering of event-based cameras on Oculus Rift VR.

## Publications

Zhang, Z., Liniger, A., Dai, D., Yu, F., Van Gool, L. **(2021)** End-to-End Urban Driving by Imitating a Reinforcement Learning Coach. *IEEE/CVF International Conference on Computer Vision (ICCV)* .

## Patents

**2021** End-to-End Urban Driving by Imitating a Reinforcement Learning Coach.

## Student Supervision

### Master Thesis

Nick Bühner. Safety Critics for Safe and Efficient Reinforcement Learning.

Felix Schmitt-Koopmann. Uncertainty in Reinforcement Learning with World Models.

Manuel Breitenstein. Dream To Drive: Learning Latent Dynamics for Model-Based Reinforcement Learning.

### Semester Projects

Alan Tirado Mayer. Learning-Based Autonomous Racing Path Planning from LiDAR Data.