Chenyang Zhou

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EDUCATION

Karlsruhe Institute of Technology **Karlsruhe, Germany**
Master of Science in Mechanical Engineering *Expected 01.2018*

- **Specializations**: Information Technology and Mechatronics
- **GPA**: 1.2 (Full score: 1.0)

RWTH Aachen University **Aachen, Germany**
Exchange Student in Mechanical Engineering *10.2014 – 09.2015*

- Full scholarship from China Scholarship Council
- Bachelor Thesis: *Multi-Objective Optimization of Suspension Geometry for Achieving the Desired Wheel Kinematics Characteristics*

Beijing Institute of Technology **Beijing, China**
Bachelor of Science in Vehicle Engineering *08.2011 – 09.2014*

- **GPA**: 91/100, Top 5%, published 3 papers and 3 national innovation patents
- National Merit Scholarship, Outstanding Undergraduate

WORK & PROJECT EXPERIENCE

Daimler AG **Stuttgart, Germany**
Intern, R&D, Development of camera-based driver assistance system for Trucks *12.2016 – 05.2017*

- Further optimized a tool chain to automatically evaluate and visualize the camera performance using C++
- Designed a test prototype to graphically display the traffic signs from CAN bus using Qt on RaspberryPi, including GUI programming, communication with CAN bus through Socket CAN, modelling and rapid prototyping of the case and installation in the truck cabin
- Applied the stratified sampling to evaluate the functions' performance, which realized an unbiased evaluation at a minimum cost
- Implementing the clustering method based on HoG and PCA in the lane departure warning function, training a classifier based on density estimation to recognize the unjustified warnings

FZI Research Center for Information Technology **Karlsruhe, Germany**
Research Assistant, Data Reduction and Predictive Modelling in Electrical Mobility *01.2016 – 09.2016*

- Reduced the data dimensions from 18 to 5 based on Variance Analysis and Principle Component Analysis
- Established a predictive model using Hidden Markov Model and nonparametric regression to predict the following driving events

Institute for Combustion Engines, RWTH Aachen University **Aachen, Germany**
Research Assistant, Development of a new hybrid powertrain with 3 drive modes *02.2015 – 09.2015*

- Automated the BUS Connection in Simulink using m-scripts
- Built and validated the error handling modules for 6 components in Simulink
- Built and finished the Unit-Test for 4 subsystems
- Drafted and simulated 8 drive cycles und executed the whole Model-in-the-Loop phase, found and solved 4 errors during the start up and mode change

Project: Analysis of the Effect of Lane Occupation on the Traffic Capacity **Beijing, China**
China Undergraduate Mathematical Contest in Modelling *10.2013*

- Extracted traffic flow data from two pieces of 30-minute videos
- Built two models respectively based on differential equations and the cellular automaton
- Awarded with IBM SPSS Innovation Prize (one team from more than 23,000 teams) and First Prize

Project: Bionic Quadruped Robot with flexible Spine and elastic Feet **Beijing, China**
National Undergraduate Training Program for Innovation and Entrepreneurship *05.2012 – 10.2013*

- Implemented a neuron-based method to enable the robot to move with 4 gaits
- Realized the balance keeping after max. 2g lateral impact in the simulation environment (Adams&Simulink)

SKILLS

- **Languages**: native in Chinese, full professional proficiency in English and German
- **Technical Skills**: C, C++, MATLAB, R, Linux, ROS, Python