Chenyang Zhou

+49 159 0580 1164 | zhoucykit@gmail.com | https://chenyangzhou.github.io/

EDUCATION

Karlsruhe Institute of Technology **Karlsruhe, Germany**
- *Master of Science in Mechanical Engineering*, GPA: 1.2/1.0 *10.2015– 01.2018*
- **Focus**: Information Technology, Mechatronics
- **Master Thesis**: *Hierarchical Monte Carlo Tree Search for the planning of cooperative driving maneuvers*

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, GPA: 91/100, Top 5% *08.2011 – 09.2014*
- Published 3 papers and 3 national innovation patents (authorized)
- National Merit Scholarship, Special Class and First Class Prize in Mathematical Modelling Contest

WORK & PROJECT EXPERIENCE

Daimler AG **Stuttgart, Germany**
Intern, R&D, Development of Camera-based Driver Assistance System for Trucks *12.2016 – 05.2017*
- Further developed a tool chain to automatically evaluate and visualize the camera performance in C++
- Designed a test prototype to graphically display the traffic signs from CAN-BUS using Qt on RaspberryPi
- Developed a evaluation method based on HoG-Vector and k-means to recognize and filter the unjustified output in R

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
- Built a predictive model using nonparametric regression and markov chain to predict the following driving events using R

Institute for Combustion Engines, RWTH Aachen University **Aachen, Germany**
Research Assistant, Development of a new Hybrid Powertrain with three Drive Modes *02.2015 – 09.2015*
- In cooperation with DENSO GmbH and FEV GmbH
- Automated the BUS Connection in Simulink using m-scripts
- Built and validated the error handling modules for 6 components
- 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*
- Team leader of a group with 3 students
- Extracted traffic flow data from two pieces of 30-minute videos
- Built two models respectively based on differential equations and the cellular automaton with MATLAB
- 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)
- Published 2 EI-Indexed journal papers, 1 Scopus-Indexed Conference paper and 3 authorized patents

SKILLS

- **Languages**: native in Chinese, full professional proficiency in German(C1) and English (TOEFL: 106)
- **Technical Skills**: C++, R, MATLAB, C, Linux, ROS, Python

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