

Kailin Huang

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Birth: 15.05.1993 in Beijing, China

Nationality: Chinese



Education

09.2016 – present	ETH Zürich, Switzerland Mechanical Engineering MSc: Focus: Robotics: Computer Vision and SLAM Main Courses: Machine Learning, Image Analysis and Computer Vision, Robot Dynamics, Recursive Estimation, Dynamic Programming and Optimal Control, Vehicle Propulsion System, Flight Dynamics, Fundamentals of CFD, Advanced CFD, Turbulent Flows Master Thesis: Dense Object Simultaneous Localization and Mapping (SLAM)
09.2012 – 08.2016	ETH Zürich, Switzerland Mechanical Engineering BSc - GPA 5.27/6 <ul style="list-style-type: none">• Focus Project: Formula Student Electric (Aerodynamics)• Bachelor's thesis: Feasibility study of an unsprung aerodynamic package on a Formula Student race car
08.2009 – 06.2012	Gymnasium Marienthal, Hamburg, Germany German Highschool - Abitur grade 1.2 (best 1.0, pass 4.0, worst 6.0) <ul style="list-style-type: none">• Main courses: Physics, Chemistry and Biology• Extracurricular: Event AG: event management and stagecraft

Work / Project Experience

03.2018 – 10.2018	NIO, Shanghai: Autonomous Driving Internship Sensor fusion using particle filtering for lane level localization using Vision, GPS and IMU data.
03.2018 – 10.2018	Computer Vision and Geometry Group, ETH Zürich Master Thesis: Dense Object Simultaneous Localization and Mapping (SLAM) Grade 5.5/6 <ul style="list-style-type: none">• Supervisor: Prof. Marc Pollefeys• Dense SLAM using RGB-D cameras with semantic instance segmentation. Using deep learning to create a reconstruction of each object, which can be used as landmarks for localization and loop closure.
03.2016 – 09.2016	MAHLE Behr GmbH Co. KG, Stuttgart, Germany Internship CFD Method Development Programming Java-Tools for automation of STAR-CCM+ workflow and Post-Processing
09.2013 – 08.2015	Akademischer Motorsportverein Zürich (AMZ Racing Team) <ul style="list-style-type: none">• Design of the steering system• Design of the aerodynamic package (Siemens NX) and CFD simulation (STAR-CCM+)• Wind tunnel testing at RUAG automotive wind tunnel in Emmen, Switzerland Awards & Achievements <ul style="list-style-type: none">• Winner in FSE Spain and FSE Austria and 2nd in FSE Germany• World Ranking No. 1 of Formula Student Electric
	ETH Zürich Teaching Assistant for following lecturers Leading exercise hours for groups of 20-25 students

02.2018 – 06.2018	<ul style="list-style-type: none"> • Informatics 1 for Mechanical Engineers (C++)
09.2016 – 12.2016	<ul style="list-style-type: none"> • Introduction in Programming 1 for Computer Science (Java)
09.2014 – 12.2014	<ul style="list-style-type: none"> • Engineering Design (Dimensioning) 1
05.2012 – 06.2012	<ul style="list-style-type: none"> • Getriebebau NORD, Bargteheide, Germany • Workshop Internship: Milling, Lathing, Drilling and Welding

Skills

Languages	<p>Chinese: native</p> <p>German: native</p> <p>English: full working proficiency (IELTS 7.5)</p>
Computer	<p>Programming Languages:</p> <ul style="list-style-type: none"> • C++ • Java • Python <p>Software:</p> <ul style="list-style-type: none"> • MATLAB • Siemens UG NX: CAD Modeling and Structural FEM • STAR-CCM+: CFD Simulation • ANSYS: Structural FEM (basic knowledge) • Microsoft Office • LaTeX • Git <p>Operating Systems:</p> <ul style="list-style-type: none"> • Microsoft Windows • Linux
