

# Yue, Zhenrui

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## EDUCATION

09/2019 - Present	<b>University of California, San Diego</b> <b>Exchange Program, Computer Science</b> • GPA: 3.9 / 4.0, Exchange from September 2019 to March 2020 • Courses: Data Science, Modeling and Data Analysis, Probabilistic Reasoning, Machine Learning, Deep Learning, Recommender System & Web Mining	San Diego, United States
10/2015 - Present	<b>Technical University of Munich</b> <b>M.Sc., Computer Science (Track: Robotics, Cognition, Intelligence)</b> • GPA: 1.7 / 5.0 (German scale, Top 10%) • Courses: Robotics, Motion Planning, Computer Vision, Software System Engineering, Principles of Economics etc. <b>B.Sc., Mechanical Engineering (Track: Mechatronics and Information Technology)</b> • GPA: 2.3 / 5.0 (German scale, Top 20%) • Courses: Analysis, Linear Algebra, Physics, Mechanics, Electronics, Product Development, Intro to Computer Science, Data Structure and Algorithm, Software Engineering, Embedded System, Control Theory, Simulation Technology, etc. • College Entrance Exam (in China): 646/750, ranked 2036 <sup>th</sup> in over 350.000 participants (Top 1%)	Munich, Germany

## WORK & RESEARCH

01/2020 - Present	<b>University of California, San Diego</b> <i>Student Researcher   Computer Science and Engineering</i> • Propose research projects in recommender system under the guidance of Prof. Julian McAuley at UCSD CSE • Analyze literature and reproduce researches on topics of adversarial machine learning and recommender system • Conduct robustness researches of traditional and neural network recommendation models like MF, BPR and BERT	San Diego, United States
11/2018 - 09/2019	<b>Siemens AG</b> <i>Software Engineering Intern (Part Time)</i> • Supported the team to implement project strategy, conducted technical researches and created presentations • Developed a database (MSSQL) and an access app for PO team (over 20 people) and deployed on SharePoint server • Designed a web crawler (Python Scrappy) to extract different machine tools (lathe, drilling machine etc.) specification data from over 20 websites and implemented an office add-in (Office JavaScript API) to filter various specifications	Munich, Germany
11/2017 - 05/2018	<b>Volkswagen Group China</b> <i>Project Management Intern / Quality Assurance</i> • Coordinated Volkswagen EA211 engine projects (1.2, 1.4TSI and 1.5MPI of C5 standard) with relevant departments • Designed a Java program for project & milestone scheduling, report generation and deployed for a twelve-people team • Reviewed EA211 engine modification requests including hardware & software changes and conducted tech evaluations	Beijing, China

## PROJECTS

01/2020 - 03/2020	<b>Trajectory Prediction with Embedded Multi-modal Distribution in a Graphical Model</b> • Analyze literature and reproduce state-of-the-art neural network architectures on topics of trajectory prediction • Proposed 3 NN architectures: Graph Attention GAN (GAT-GAN), Discriminative Social-LSTM and ID-Social-LSTM • Combined Graph Attention Networks and Social-GAN in GAT-GAN to consider interactions between pairs of agents • Implemented the 3 NNs and achieved better FDE/ADE results than the state-of-the-art Social-GAN on some datasets
05/2019 - 08/2019	<b>Autonomous Navigation and Parking based on 2D-LiDAR SLAM</b> • Implemented ROS Navigation System and Hector-SLAM on a RC-Car with Xbox controller & different sensors • Integrated hardware & software components and deployed on Raspberry Pi (RC-Car) and PC for real-time visualization • Developed multiple ROS nodes (C++ and Python) for LiDAR & distance sensor fusion, park planning and following algorithm (parallel and perpendicular parking), PID controller and Extended Kalman Filter for localization

## SKILLS

Languages	Native in Mandarin and Cantonese, proficient in English and German
IT Skills	MS Windows, MS Office, Linux / Ubuntu, macOS and CAD (Inventor, SolidWorks, CATIA)
Coding	Proficient in <b>Python (3 yrs)</b> ; previously used <b>Java (2 yrs)</b> , <b>JavaScript</b> , <b>C/C++</b> ; experiences with <b>scikit-learn</b> , <b>PyTorch</b> , <b>Google Cloud</b> , <b>AWS EC2</b> , <b>Robot Operating System (ROS)</b>
Organization	Elite Network of Bavaria (Academic Honor Society), CSSA (Society of Chinese Scholars & Students)

## HONORS & AWARDS

04/2017 - Present	<b>Max Weber Program of the State of Bavaria (German Academic Scholarship Foundation)</b> • Including career mentoring, scholarship, research funding, summer schools, seminars, courses for program scholars
09/2018 - Present	<b>Audi Campus Ambassador Scholarship</b> • Scholarship from Audi China based on academic excellence and campus services at TUM