Mr. Chengzhe Jia

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EDUCATION BACKGROUND

Beijing University of Technology (BJUT) 09/2016 - 07/2020

- **Major:** Bachelor of Engineering in Measurement and Control Technique and Equipment
- **GPA:** 3.49/4.00
- **Award:** The Third Scholarship of BJUT (top 30%)
- **Selected Relevant Courses:** Computer Language Training (90/100), Fundamentals of Circuit Analysis(91/100), Fundamentals of Mechanical Accuracy Design (Bilingual)(80/100), Course Design of Precision Machine Design (86/100), Electrical and Electronic Technology Courses(97/100), Circuits for Measurement and Control (87/100), Course Design of Sensing and Testing Technology (87/100)

University of California San Diego (UCSD) 09/2021 - 05/2023

- **Major:** Master of science program in mechanical and aerospace engineering
- **GPA:** 3.84/4.00
- **Selected Relevant Courses:** Topics in Engineering Science-Design of Haptic Systems (A), Robotics (A+), Linear Control Design (A+), Robot Motion Planning (A), Advance Technics in Computational Math I (A)

PUBLICATION

- W. Ma, X. Geng, **C. Jia**, etc. Percussion Characteristic Analysis for Hydraulic Rock Drill with no Constant-Pressurized Chamber through Numerical Simulation and Experiment, *Advances in Mechanical Engineering 2019, Vol. 11(4) 1–11*. DOI: 10.1177/1687814019841486

PROFESSIONAL EXPERIENCE

Vibration Adhesion - Torque Generation 03/2022 - 05/2023

Sole Project Leader, *Bioinspired Robotics and Design Lab, UCSD*

- Supervisor: Prof. Michael T. Tolley
- Using CAD to design and manufactured different robot models
- Design and build experimental platform
- Using SolidWorks design and 3D-printed accessories for experiments
- Using Tracker(video analysis and modeling tool) to gather data from recorded video
- Using Matlab & Excel to process and analyse experimental data
- Communicate and collaborate with other professors' groups to solve problems
- Paper in preparation, to be presented at the conference

Measuring Instrument Operation 06/2019 - 07/2019

Lab Intern**,** *Institute of Metrology, National Institute of Metrology, China*

- Supervisor: Dr. Yao Huang
- Learned the practical operation of measuring instruments like angular gage block, dividing head and autocollimation
- Mastered the use of Trioptics and processed measured data by Excel
- Conducted inspection instruments test

Percussion Characteristic Analysis for Hydraulic Rock Drill with no Constant-Pressurized Chamber through Numerical Simulation and Experiment

01/2019 - 02/2019

Research Assistant *(the only undergraduate in Group of Seven), School of Mechanical Engineering, University of Science and Technology Beijing*

- Supervisor: Prof. Fei Ma
- Installed the pressure sensor according to the sample frequency
- Collected the hydraulic data of dual-channel through acquisition instrument of LMS SCADAS Mobile and software of LMS Test Xpress 7A
- Self-learned the Simulink of Matlab and built model to analyze data

Multifunctional Robot Design for Family Safety 12/2017 - 06/2018

***Core Member in Group of Five**, National University Student Innovation Program, BJUT*

- Supervisor: Senior Engineer Shuwen Sun
- Adopted 51 SCM as the lower program control system and used Keil software to write program
- Employed STM32F103 SCM to the core control part, and controlled the skills of the environment configuration and library function call to complete upper computer program by C#
- Modified the wireless remote control car with modules of temperature-humidity, smoke sensor, humidifier, monitoring and obstacle avoidance
- Awarded **the Second Prize** of the 12th iCAN International Contest of Innovation (BJUT Division)

Automatic Food Pickup Robot Design 12/2016 - 11/2017

***Team Leader in Group of Five,** Spark Fund Project, BJUT*

- Supervisor: Senior Engineer Shuwen Sun
- Acquired the use of Keil software and 51 SCM (single chip microcomputer) and applied them to the installation and modification of the intelligence vehicle
- Achieved the function of path recognition, line-tracking and signs identification based on infrared sensor using C
- Awarded **the Certification** of 18th Spark Fund Project

OTHER HIGHLIGHTS

Computer Software: Keil, LabVIEW, MATLAB, Arduino, CAD, SolidWorks, SPSS, and Tracker(video analysis and modeling tool)
Computer Language: Python, C, C#, Latex and Android Studio
Leadership: Deputy Director of Reasoning Board Game Club for two years

STANDARD TESTS

TOEFL: 100 (R27; L27; S23; W23) Test Date: 05/11/2019
GRE: 331 (V 161/88%; Q 170/96%; AW 3/15%) Test Date: 10/20/2019