

JI WANG

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SUMMARY OF QUALIFICATIONS

Highly analytical and creative recent MSME graduate with direct industrial internship experience at a leading coal-based integrated energy company. Solid understanding and skills in mechanical design, CAD softwares, testing tools and programming. Team spirited with effective communication and presentation skills. Excellent troubleshooting, multitasking and time-management abilities in fast-paced environment.

SKILLS

Languages: Mandarin, Cantonese
Computer Skills: ProE/Creo, AutoCAD, COMSOL, C/C++, Python, ROS, Matlab, Simulink, Protel DXP, Linux
Hardwares: Milling Machine, Drilling Machine, Circuits, Sensors, Siemens PLC S7 Series, Embedded Micro-controller

EDUCATION

Columbia University, Fu Foundation School of Engineering and Applied Science

New York, NY
February 2013

- *M.S. in Mechanical Engineering*, GPA 3.8/4.0

Zhejiang Sci-Tech University, School of Mechanical Engineering and Automation

Hangzhou, China
June 2011

- *B.S. in Measurement, Control and Instrumentation*, GPA 90.1/100

Relevant Coursework: MEMS, Precise Machine Design, Modern Test Techniques, Elasticity, Thermodynamics

EXPERIENCE

Control Engineer Intern, China Shenhua Group

August 2010-June 2011

- Designed and manufactured a novel displacement mechanical sensor by using AutoCAD
- Created electrical and mechanical schematic drawings for the system by AutoCAD
- Assembled the hydraulic and pneumatic drive for the system
- Troubleshoot on the design of the electrical system and PLC real-time control model for a long conveyor belt system
- Doubled the product conveyors' lives to save \$300,000 annually and increased the transporting efficiency by nearly 30%

Research Assistant, Columbia University Robotics Lab

September 2012-January 2013

- Designed and manufactured the robotic hand and its mount by ProE
- Handled responsibilities of mechanism improvement, hardware testing and signal processing for robotic hands
- Created the modules by C/C++ and Python for signal processing, communication and control algorithm
- Developed a reactive control algorithm based on ROS for the robotic hand with highly sensitive tactile sensors

Team Leader, Columbia University

November 2011-December 2011

- Teamed with 3 other students and focused on COMSOL simulation and Matlab calculation
- Modeled a nano zipper and simulated its dynamical, mechanical and thermal properties by Finite Element Method
- Conducted calculation of material parameters for the zipper in theory by Matlab

Third Prize Winner, China Freescale Smartcar Competition

July 2010-December 2010

- Created a self-navigated vehicle by using embedded micro-controller with two students as a team
- Performed the tasks of design and application of the optical sensors for speed measurement and path recognition
- Designed and developed programs in C for signal processing based on Freescale X12 MCU chip

LEADERSHIP ACTIVITIES

President, Zhejiang Sci-Tech University's Tennis Club

August 2009-December 2010

- Launched a recruitment campaign which grew club from 14 to 43 members;
- Organized and budgeted Tennis Club activities.

PATENT

- P.R.C Patent # [CN102322790](#), *Displacement sensor for detecting steel strip-conveying deviation*, issued January 2012
- P.R.C Patent # [CN202063530](#), *Cooling forming machine steel band rectification system for long-distance conveying of high temperature materials*, issued December 2011
- P.R.C Patent # [CN102060174](#), *Long-distance transporting high temperature material cooling forming machine steel belt deviation correcting system*, issued May 2011