

YANRAN DING

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EDUCATION

- Mechanical Engineering (M.S.), University of Illinois at Urbana-Champaign** May 2017 (expected)
Mechanical Engineering (B.S.), Shanghai Jiao Tong University, Shanghai, China Sept. 2011-Aug. 2015
- Academic Ranking: 1/53 GPA: 3.8/4.0 National Scholarship for Undergraduates (top 0.2% Nationwide)
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EXPERIENCE

Research Assistant, Dynamic Robotics Laboratory, UIUC Dec. 2015-present

Research Assistant, Laboratory for Optical Measurement and Sensing, SJTU, Shanghai May 2014-Dec. 2014

- Implemented a Real-Time motion control system for the piezo-actuated planar motor in LabVIEW
- Added proportional-integral controller, tuned PID parameters and limited the deviation under skiing mode within $\pm 1\mu\text{m}$
- Conducted measuring experiments using a laser interferometer, which proved the linear resolution to be 2 nm
- Submitted a paper titled “Large-stroke piezo-actuated planar motor for nanopositioning applications” to Elsevier

Application Engineer Intern, National Instruments, Shanghai Feb. 2015-Apr. 2015

- Upgraded an in-vehicle infotainment auto-testing system with data acquisition (DAQ), radio frequency (RF) modules
- Programed in TestStand which conditioned and analyzed video, audio and RF signals from an infotainment device
- Coded a game named SIMON with friendly user interface in LabVIEW, using event-based state machine
- Gained hands-on experience in DAQ, FPGA modules and producer-consumer programming structure

Product Developer, RoboTerra, Inc. Shanghai Apr. 2015-June. 2015

- Created and programmed a 13 DOF humanoid robot, which could transform between vehicle and human shape
- Developed high school level Robotics related curriculums. Worked as a teaching assistant for a semester
- Provided technical support to high school teams competing in FRC (FIRST Robotic Competition)

Designer, Shanghai Jiao Tong University and General Electric (GE), Shanghai May. 2015-Aug. 2015

- Took responsibility in mechanical design. Devised and manufactured an Argon Gas Protective Device for laser polishing, which achieved high roughness reduction (50% reduction with optimal operating parameters)
- Expertise in SolidWorks, professional 3D drawing, Design for Manufacture and Design for Assembly skills
- Won the Gold Award among 31 capstone design projects in the 2015 Summer Design Expo

Project Leader, School of Electronic Information and Electrical Engineering, SJTU, Shanghai Nov. 2013-May 2015

- Constructed and built a mechanical arm on a quadcopter; integrated modules including camera, accelerometer/gyro/compass sensors, brushless/servo motors, LiPo batteries, Electronic speed controllers, RC modules and an embedded controller
- Composed and submitted a patent request for the four-bar linkage based mechanical arm design
- Utilized multiple manufacturing methods including laser cutting, 3D printing and sheet metal working
- Attained excellent evaluation among 90 projects for the 7th National Undergraduate Innovation Program

Assistant Design Engineer, Ju Zhi (start-up), SJTU, Shanghai Mar. 2014-July 2014

- Objective: Design an automatic production line of slide switches (Model: SS12F15VG6)
 - Designed a mechanism to guide and position the metal shell of a slide switch in mass production
 - Gained hands-on experience in non-standard mechanism design and assembly.
 - Gained familiarity with tolerance, surface roughness and material choice in metal part design
 - Created an animation of the production line in the presentation for sponsors
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SKILLS & PERSONAL INFO

- **Software:** SolidWorks, Creo, LabVIEW, MATLAB, Abaqus, Mathematica, Microsoft office, Adobe Illustrator, C/C++
- **Language:** Fluent in English (TOEFL 113/120; GRE 331/340), Native speaker of Mandarin