

# Jing Yu

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## **EDUCATION**

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### **Georgia Institute of Technology, Atlanta, GA**

- Candidate for Bachelor of Science in Mechanical Engineering
- GPA: 3.74
- Anticipated time of graduation: Fall 2016

## **EXPERIENCE**

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### **Research – Subtractive Manufacturing Automation**

**February 2016 – Present**

- Operate and basic maintain on 5-axis CNC machines to test various programs made from developing CAM software
- Reverse engineering with industrial CT scanner and analyze results with Zeiss and Matlab
- Tool path planning and G code programming for 5-axis CNC machines
- Program and establish network socket for local machines to send data to MTConnect, a data standard for digital manufacturing
- Process planning for undergraduate students with no CNC experience to make their own yoyo on 3 axis CNC Lathe

### **Invention Studio Prototyping Instructor**

**January 2015 – Present**

- Train and help students with various machines including water jet, 3D Scanner, laser cutters, etc.
- Organize and hold workshops for various projects to engage students in prototyping activities
- lead students in the use and maintenance of the equipment in the studio

### **Bosch Rexroth Mechanical Engineering Co-op**

**August 2015 – December 2015**

- Design, model and test hydraulic components and fixtures for various parts such as pump flanges and port plates for CNC and robotic washing machines
- Tool management including AutoCAD assembly drawings and tool life analysis
- 3D printer calibration, set up, component replacement and general trouble shooting for software and hardware
- Create and revise control plans for quality control of products
- Report and documentation of meetings and projects related materials

### **TeamBuzz Co-Director of International Programs/ Project Coordinator**

**August 2014 – December 2015**

- Promote and organize TeamBuzz events with local volunteer organizations for study abroad programs
- Attend weekly executive meetings to discuss and improve logistics of TeamBuzz
- Responsible for transportation, communication and activity planning of TeamBuzz events

## **PROJECTS**

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### **ME 4903 Special Problem: BMW Automatic Hinge Feeding System**

**January 2016 – May 2016**

- Design and build an autonomous system to reorient a batch of door hinges to a desired orientation
- Design and test MDR (Motor Driven Roller) Control system with various sensors
- Responsible for mechatronic portion of reorientation stage with Arduino and motors integrated with camera vision
- Fabricate various mechanical components of the system such as support structures and controlled sliding system
- Implement DFMA in design and fabrication of the system

### **ME 4182: Capstone Design**

**August 2016 – Present**

- Establish and program a local website displaying real time CNC machine status with Elastic Stack in Python
- Design and fabricate mountings for accelerometer, fluid level sensor and temperature sensors for machine monitoring
- Program for communication between Raspberry Pi and Arduino for data acquisition and online logging

## **SKILLS**

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**CAD:** SolidWorks, Inventor, Fusion 360, AutoCAD, Calypso

**Machining:** Water jet, Laser Cutter, Multi-axis CNC

**Programming:** Java, #C, Python, Linux, LABVIEW, HTML, MATLAB