

# RANNIE DONG

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## EDUCATION

**Cornell University**, College of Engineering, Ithaca, NY

Master of Engineering in Mechanical Engineering, **GPA 3.79**

Bachelor of Science in Mechanical Engineering

Sibley School of Mechanical and Aerospace Engineering Outstanding Senior Award

**Expected May 2018**

**May 2017**

**2016 – 2017**

**Selected Coursework:** Innovative Product Design via Digital Mfg. • Uncertainty Analysis in Engineering  
Finite Element Analysis • Human-Robot Interaction

## SKILLS

**Technical:** MATLAB, Python, ROS, SolidWorks, Autodesk Fusion 360, ANSYS, LaTeX, machining, Microsoft Office

**Language:** Mandarin Chinese (advanced), Spanish (intermediate), French (basic)

## EXPERIENCE

### GE Aviation

*Lynn, MA*

Design Intern

Summer 2016

- Constructed axial stack-up for T64 engine to substantiate change in design in 4 stages of compressor vanes resulting in \$50K cost reduction.
- Analyzed data of coordinate-measuring machines to determine why actuation rings were often manufactured out of tolerance.
- Established requirements for 2 Vendor Substantiated Engineering approvals to allow shipment of 144 compressor blades and 206 compressor vanes.

### GE Aviation

*Evendale, OH*

Supply Chain Intern

Summer 2015

- Designed 3 lean toolkits in AutoCAD for more organized and accessible tools.
- Developed sustainable process for labelling CFM56 engine part kits by creating spreadsheet that generates labels from inputted data, doubling kitting capacity.
- Updated 5 assembly instructions to clarify diagrams and eliminate quality problems.

## CLASS PROJECTS

### Wind Power

Fall 2016

- Worked in a team to develop a small-scale wind turbine blade.
- Designed turbine in Solidworks and tested 3D printed model; results matched predictions.

### Mechatronics

Fall 2015

- Programmed Arduino UNO microcontroller in C++ to control battle robot in team of 3.
- Designed and fabricated robot for maximum stability, traction and durability within budget and competition guidelines.

## RESEARCH

### Autonomous Bike Team

Fall 2015

- Designed mount for Inertial Measurement Unit (IMU) for improved motion readings.
- Rewrote Python code for IMU to automate calibration of the startup angle.

## LEADERSHIP / TEAMWORK

### Mechanical Synthesis

Head Teaching

Assistant

Spring 2016 – 2018

- Planned and facilitated lab section of 25 students, bringing excitement and structure to class.
- Trained students to mill and lathe safely and accurately.
- Designed and built water pump with best flow rate efficiency in team of 5 as student.
- Prototyped 2 iterations of cup holder for lecture hall desks in team of 3 as student.

### ASME Cornell Chapter

President

*Previously: Social Chair,*

*Publicity Chair,*

*Webmaster*

Spring 2014 – Fall 2017

- Created Recruitment Chair position, actively increasing and retaining membership.
- Planned First Annual Senior Mechanical Engineering Formal with MAE department; 85 students and professors attended.
- Organized 10 social events with co-chair including joint event with 3 other societies, creating tight-knit class of mechanical engineers.
- Advertised 15 club events as well as other MAE events to MAE student body.