# RANNIE DONG

rsd64@cornell.edu | www.ranniedong.me

## EDUCATION

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

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|---|---|
| Master of Engineering in Mechanical Engineering, **GPA 3.93** | **May 2018** |
| Bachelor of Science in Mechanical Engineering | **May 2017** |
| Sibley School of Mechanical and Aerospace Engineering Outstanding Senior Award | **2016 – 2017** |

**Selected Coursework:** Design and Innovation • Rapid Prototyping and Physical Computing • GD&T • FMEA
Design Thinking for Complex Systems • Finite Element Analysis • Uncertainty Analysis

## SKILLS

**Technical:** SolidWorks, Autodesk Fusion 360, ANSYS, Adobe Photoshop, machining, 3D printing, laser cutting
**Programming:** MATLAB, Python, C/C++, Robotic Operating System (ROS), LaTeX
**Language:** Mandarin Chinese (intermediate), Spanish (intermediate), French (basic)

## WORK EXPERIENCE

**GE Aviation** MA
Design Engineering 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.
- Established requirements for 2 Vendor Substantiated Engineering approvals to allow shipment of 350 non-conforming compressor blades and vanes, reducing waste.
- Worked with other departments and outside suppliers to complete projects.

**GE Aviation** OH
Supply Chain Engineering 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 mitigate quality problems.

## CLASS PROJECTS

**Rapid Prototyping**
Cheesecake Printer
Spring 2018

- Designed machine that prints 2D cheesecake pattern on graham crackers for kids.
- Developed mechanical system that integrated with microcontroller and electronics.
- Modeled in CAD and 3D printed a custom cheesecake extruder system.

**Innovative Product Design** EZ Clasp
Fall 2017

- Interviewed elderly via empathy fieldwork which led to design of a retrofitted jewelry clasp to make putting on and removing one's existing jewelry easier.
- Created 3 iterations of CAD models for 3D printing and assembled 3 prototypes.

## PROJECT TEAM

**CU Sustainable Design**
Bus Shelter Team
Spring 2018

- Performed finite element analysis on bus shelter frame to ensure stability.
- Created CAD model of iteration of bench for structural analysis.
- Wrote and edited report on progress, and helped create business pitch for competition.

## LEADERSHIP / TEAMWORK

**SYSEN 5940 TA**
Summer 2018

- Helped plan, organize and teach empathy fieldwork and the systems design process to 60 Systems Engineering students.

**MAE 2250 Head TA**
Spring 2018

- Managed and provided support for the professor and 15 undergrad teaching assistants.
- Trained students to mill and lathe safely and accurately as undergrad TA in 2016-17.
- Designed and built water pump with best flow rate efficiency (10.25 L/min at 1.72 lbs) with teammates as MAE 2250 student in 2015.

**ASME President**
*Past: Social, Publicity, Webmaster*
Fall 2016 – Spring 2017

- Created Recruitment Chair position, actively increasing and retaining membership.
- Planned 1st Senior Mechanical Engineering Formal with MAE department; 85 attended.
- Organized 10 social events with co-social chair including one with 3 other engineering societies, creating tight-knit class of mechanical engineers.