# **RANNIE DONG**

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#### **EDUCATION**

Cornell University, College of Engineering, Ithaca, NY
Master of Mechanical Engineering, May 2018, GPA 3.93
Bachelor of Science in Mechanical Engineering, May 2017
Sibley School 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

## **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 material science department and external 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

# MAE 2250 Head TA

Spring 2018

- Provided support for the professor and managed 15 undergrad teaching assistants.
- Trained students to mill and lathe safely and accurately as undergrad TA in 2016-17.

## **ASME President**

Past: Social, Publicity, Webmaster Fall 2016 – Spring 2017

- Created Recruitment Chair position, actively increasing and retaining membership.
- Planned 1<sup>st</sup> 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.

## SKILLS

Technical: SolidWorks, Autodesk Fusion 360, ANSYS, Adobe Photoshop, machining, 3D printing, laser cutting, MS Office

**Programming:** MATLAB, Python, C/C++, Robotic Operating System (ROS), LaTeX **Language:** Mandarin Chinese (intermediate), Spanish (intermediate), French (basic)