Alisa Mizukami

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Portfolio: AlisaMizukami.com

EDUCATION

Macaulay Honors College at The City College of New York, New York, NY GPA: 3.65
Bachelor of Engineering, Mechanical Engineering December 2020

SKILLS

Computer Skills: ANSYS (Mechanical APDL, Fluent); MATLAB; SolidWorks; Creo; Oracle Crystal Ball; Microsoft Excel; PowerPoint; Word
Language: Fluent Japanese

RELEVANT WORK EXPERIENCE

Structures Intern, **Pratt & Whitney, East Hartford, CT** June 2019 – August 2019
- Conducted a modal analysis of the PW1100G high-pressure turbine blades mounted in testing blocks by FEA using ANSYS MAPDL to obtain contours of displacement and principal stresses.
- Interpreted contours to investigate locations of stress singularities, conclude locations of likely fracture, and summarize results in a presentation to compare against future modal analysis lab tests.

Technical Intern II, **BAE Systems Inc., Nashua, NH** January 2019 – May 2019
- Performed statistical tolerance analysis using Crystal Ball by compiling dimensions from engineering drawings and CAD models in spreadsheets to conclude the feasibility of changing a part design.
- Assisted in qualification of hardware product by working with inspection to verify dimensions of manufactured component housings and confirming reasonable tolerance analysis assumptions.

Advanced Manufacturing Apprentice, **Zahn Innovation Center, New York, NY** September 2019 – Present
- Manufacturing client-requested products by lathing, milling, laser cutting, and using hand tools.

ACADEMIC PROJECTS

SolidWorks Simulation: Static Analysis of a Clothes Hanger Fall 2019
- Worked as a team of 4 to conduct experiments and compare outcomes with FEM analyses, validating results using displacement, convergence, sensitivity, and analytical tests.
- Suggested design changes using failure theory, testing improvements using validated FEM model results.
- Scripted and designed a 15-minute presentation to demonstrate our project as an organized set of procedures by presenting data that guided decisions and explaining our engineering judgement.

SolidWorks Reverse-Engineering Project: Mitsubishi SpaceJet M90 Wooden Model Fall 2019
- Took measurements of the wooden model and dimensioned the solid model to scale.
- Reported the process, detailing possibilities of error stack-up due to lack of precise datums and tools.

RESEARCH EXPERIENCE

Research Assistant, **Experimental Fluid Mechanics and Aerodynamics Laboratory**, **City College of New York**
September 2017 – December 2019
- Performed cross-platform computational fluid analysis by using SolidWorks to model, ANSYS Fluent to mesh, and OpenFOAM to compute, utilizing advantages of each software to speed up the process.
- Taught ANSYS Fluent to a Fluid Mechanics course of 40 students and created written and video tutorials.

AFFILIATIONS

Creative Director, **ASME City College Chapter** October 2016 – Present

AWARDS

Full Merit Scholarship, CUNY Macaulay Honors College August 2016 - Present