

# Alisa Mizukami

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Portfolio: [AlisaMizukami.com](http://AlisaMizukami.com)

## EDUCATION

**Macaulay Honors College at The City College of New York, New York, NY**  
Bachelor of Engineering, Mechanical Engineering

GPA: 3.71  
December 2020

## SKILLS

**Computer Skills:** ANSYS (Workbench, Mechanical APDL, Fluent); MATLAB; SolidWorks (Simulation, HSMWorks); Oracle Crystal Ball; Microsoft Excel; PowerPoint; Word

**Certifications:** OSHA 30-Hour Construction, Six Sigma White Belt

**Language:** Fluent Japanese

## RELEVANT WORK EXPERIENCE

*Research-Development-Design Intern, Actasys, Brooklyn, NY* June 2020 - Present

- Designing and testing nozzle attachments to synthetic jet actuators, increasing jet width by 50%.
- Constructing 13 drivers to convert 12V input to 120V output, decreasing frequency from 300 Hz to 50 Hz and making compatible with current actuator design.

*Advanced Manufacturing Apprentice, Zahn Innovation Center, New York, NY* September 2019 – May 2020

- Manufacturing client-requested products by lathing, milling, laser cutting, and using hand tools.

*Structures Intern, Pratt & Whitney, East Hartford, CT* June 2019 – August 2019

- Conducted a modal analysis of 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.

## ACADEMIC PROJECTS

**Senior Design: Personal Fire Escape System** January 2020 - Present

- Working as a team of 6 to design a window escape system that descends a user at a constant speed, regardless of weight. Project can be found here: [amizuka000.github.io/fireescape/](http://amizuka000.github.io/fireescape/)

**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.

## RESEARCH EXPERIENCE

*Research Assistant, Experimental Fluid Mechanics and Aerodynamics Laboratory, City College of New York*

September 2017 – August 2020

- Perform 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.

## AFFILIATIONS

*Creative Director, ASME City College Chapter*

October 2016 – May 2020

## AWARDS

Full Merit Scholarship, CUNY Macaulay Honors College

August 2016 - Present