

# KAYMIE SHIOZAWA

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## Education

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### Massachusetts Institute of Technology (MIT)

*Candidate for Master of Science in Mechanical Engineering (PhD track)*

**Cambridge, MA**

June 2021

### Massachusetts Institute of Technology (MIT)

*Bachelor of Science in Mechanical Engineering*

**Cambridge, MA**

June 2019

GPA: 4.8/5.0

## Work Experience

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### Microsoft Corporation

*Program Manager*

**Seattle, WA**

June – Aug. 2019

- Drove adoption for anomaly detection in Azure (Cloud Service) access management product
- Organized meetings with key users to create a specification for the product tailored to the users' needs
- Presented to senior leadership and won best presentation display

### Lockheed Martin Advanced Technology Center

*Mechanical Structural/Robotics Engineer*

**Palo Alto, CA**

June – Aug. 2018

- Conducted vibration analysis verifying the integrity of 3 high value PCBs to withstand spacecraft launch
- Implemented code to remotely control waypoint-navigating robots; designed 3D printed processor board mounts consisting of a clip, removing the need for fasteners
- Presented findings to 30+ executives and coworkers

### Haemonetics Corporation (Medical Devices)

*Mechanical Design Engineer*

**Braintree, MA**

June – Aug. 2017

- Devised optical sensor components to improve blood separation; worked in the blood-lab to test & characterize
- Collaborated with software, mechanical, and systems engineering teams to explore costs and manufacturability of various sensing techniques, while gaining hands-on experience in rapid prototyping
- Presented to managers of the project and executive members of the company, as well as 15 coworkers

## Research Experience

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### MIT D'Arbeloff Lab

*Undergraduate Researcher, Advisor: Harry Asada, Ph.D.*

**Cambridge, MA**

Sept. 2017 – May 2019

- Employed gaze tracking to distinguish a human operator's focus points, used Neural Networks to find trends
- Designed a base, adding a degree of freedom, for current excavation arm model through 3D modeling (CAD), material selection, and manufacturing methods such as water jetting and milling
- Selected as a scholar for [SuperUROP](http://SuperUROP), a competitive yearlong advanced research program, wrote thesis and presented in two poster sessions

### Pacific Northwest National Laboratory (National Laboratory of DOE)

*Data Scientist*

**Seattle, WA**

Jan. 2019

- Contributed to the development of software tool (Python) sizing microgrids to facilitate off the grid operation
- Analyzed the effectiveness of the tool by measuring resiliency of sized microgrid designs
- Publishing a paper on the analysis in the near future

### CEA-LETI: Embedded Micro Batteries Laboratory

*Research Engineer*

**Grenoble, France**

June – Aug. 2016

- Determined properties of battery electrolytes using electrical impedance characterization for efficient batteries
- Presented findings to lab of 40 people; cooperated and communicated with team of 5 members in French

November 2019

## Awards and Honors

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### John and Miyoko Davey Foundation Merit Scholarship

2018 – 2019

- One of 3 awardees for partial tuition coverage

### 2.12 Introduction to Robotics

Sept. – Dec. 2017

- Designed, fabricated, and controlled a robotic arm and serial elastic actuator to aid hemiplegic patients
- Awarded Most Valuable Engineer of the team by peers and professors
- Team placed 2<sup>nd</sup>

### Manufacturing and Design Robotics Competition

Feb. – Apr. 2017

- Placed Top 32/160

### MIT Autonomous Robotics Competition

Jan. 2016

#### *Mechanical Co-Lead*

- Team placed 2<sup>nd</sup>
- Won the Two Sigma Prize

## Leadership

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### Japan Karate Association/MIT Shotokan Karate Club

Feb. 2016 – Present

#### *President of MIT Club*

### Pi Tau Sigma: National Mechanical Engineering Honor Society

Mar. 2018 – May 2019

#### *Professional Development Coordinator*

- Top 25% of class eligible for membership
- Organized info sessions and student-faculty lunches using a budget of \$10,000+

### Japanese Society of Undergraduates

Aug. 2016 – Jan. 2019

#### *Treasurer*

- Organized cultural activities using a budget of \$700 every semester to facilitate interest in Japanese culture

### Freshman Pre-Orientation Program: Discover Product Design at MIT

Aug. 2015 – 2018

#### *Co-coordinator & Mentor*

- Managed a budget of \$7,000 as coordinator and collaborated with MIT faculty to organize the entire program that hosts 20 incoming freshmen and ~15 mentors
- Mentored incoming students in a weeklong program introducing them to ideation, prototyping, and CAD

## Technical Skills

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**Programming:** Python, MATLAB, Swift, Arduino, C++

**Hardware Prototyping:** SolidWorks, Fusion360, Lathe, Mill, Welding, Laser Cutting, Water Jetting, 3D Printing

**Spoken Languages:** English, Japanese, French