KAYMIE SHIOZAWA

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Education

Massachusetts Institute of Technology (MIT) — **Cambridge, MA**
Candidate for Bachelor of Science in Mechanical Engineering — June 2019
GPA: 4.8/5.0

Relevant Experience

MIT D'Arbeloff Lab — **Cambridge, MA**
Undergraduate Researcher — Sept. 2017 – Present
- Employing gaze tracking to distinguish a human operator's focus points; using 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, a competitive yearlong advanced research program, writing a paper

ISEE, Inc. (Autonomous Vehicle Startup at The Engine) — **Cambridge, MA**
Mechanical Design Engineer — Sept. 2018 – Present
- Designing hardware components for sensors using CAD to be mounted on autonomous vehicles
- Developing PID steering and speed control of unconventional autonomous vehicles

Lockheed Martin Advanced Technology Center — **Palo Alto, CA**
Mechanical Structural/Robotics Engineer — 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) — **Braintree, MA**
Mechanical Design Engineer — 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

CEA-LETI: Embedded Micro Batteries Laboratory — **Grenoble, France**
Research Engineer — 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

Skills

Languages: English, Japanese, French
Software Experience: SolidWorks, MATLAB, Python, Arduino, C++
Hardware Experience: Lathe and Mill, Welding, Laser Cutting, Water Jetting, 3D Printing

Leadership

Pi Tau Sigma: National Mechanical Engineering Honor Society — Mar. 2018 – Present
Professional Development Coordinator
- Top 25% of class eligible for membership
- Organizing info sessions and student-faculty lunches using a budget of $10,000+

Japanese Society of Undergraduates — Aug. 2016 – Present
Treasurer
- Organizing cultural activities using a budget of $700 every semester to involve entire campus with club

Japan Karate Association/MIT Shotokan Karate Club — Feb. 2016 – Present
President of MIT Club

Freshman Pre-Orientation Program: Discover Product Design at MIT — Aug. 2015 – 2018
Co-coordinator & Mentor
- Mentored incoming students in a weeklong program introducing them to ideation, prototyping, and CAD
- Managed a budget of $7,000; Collaborated with MIT faculty to organize the entire program

Awards/ Scholarship

John and Miyoko Davey Foundation Merit Scholarship — 2018 – 2019
- One of 3 awardees for partial tuition coverage of $20,000

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 2nd

Manufacturing and Design Robotics Competition — Feb. – Apr. 2017
- Placed Top 32/160

MIT Autonomous Robotics Competition — Jan. 2016
Mechanical Co-Lead
- Designed mechanisms that consistently completed the task and cooperated with software and electrical leads
- Placed 2nd, Won the Two Sigma Prize