LIANI LYE

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education

Olin College of Engineering Needham, MA / Class of 2017

Candidate for a Bachelor of Science in Robotics Engineering. GPA 3.03.

Relevant coursework: Mechanical Design, User-Oriented Collaborative Design, Principles of Engineering, Fundamentals of Robotics, Mechanics of Solids and Structures, Modeling and Simulation, Design Nature, Investigating Normal

experience

Lab Manager @ Olin EASE Lab June 2015 - present

- Working with professor to establish new lab, focusing on hands-on STEM education for underserved youth
- Engaging cross-functional, multi-organization team to design and produce manufacture-ready scooter accessory
- Establishing and maintaining contacts in manufacturing/making circles
- Documenting and publicizing lab initiatives

Mechanical Coordinator @ Olin Robotic Sailing Sept 2013 - May 2015

- Of 20-member team, led 5 in building sailboats to attempt autonomously traverse the Atlantic Ocean
- Adapted 4m hull with foam/carbonfiber attachments to house actuation and sensor suite, emphasizing modularity
- Designed and implemented belt-pulley sail actuation for student-built 2m hull, focusing on responsiveness
- Conducted on-the-water boat performance tests to assess system integration and mark for improvement

Designer @ Olin UOCD Jan 2015 - May 2015

- Conducted informational interviews with sexual assault/domestic violence hotline workers across 6 local organizations
- Developed paper interaction and physical product mockups, continuously refining based on collaborators' feedback
- Final product: phone case that discretely assists workers in finding private, quiet spaces to take calls

Mechanical Developer @ ICF Prosthetics Oct 2014 - Dec 2014

- On $250 budget with 4-person team, spearheaded development of arm and gripper in constrained space setting
- Built 8 prototypes during 8-week project period, with an eye towards material selection
- Final product: $170 and 0.9lb, smart, under-elbow prosthesis with finer, more intuitive control

Project Manager @ CAMS Engineering Design and Development Aug 2012 - June 2013

- Led leading 16-member team and managing $1,500 budget
- Wrote specification and test documentation; produced drawings for technical data package
- Negotiated and outsourced waterjet services; fabricated parts on mill, lathe in-house; aided in assembly
- First team in 10-year course history to complete mission, plus generate revenue from outside-school organizations

interests

The Foundry: Entrepreneurship as a Means for Positive Social Change

Board member working to jumpstart student startups and connect undergrads to the Boston startup scene.

Cultural Conversations: Making the Uncomfortable Comfortable

Facilitator of monthly, school-wide discussions to foster greater awareness of race, ethnicity, and culture.

technical skills

Design SolidWorks, Fusion 360, Photoshop, Illustrator, InDesign

Fabrication Mill, Lathe, Router, Composite layups, Lasercutter, 3D printing, Cardboard carpentry

Programming Python, Arduino C, ROS, HTML, CSS, JavaScript, D3, MATLAB, Git, GitHub