Lara Zlokapa

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Cambridge, Massachusetts, USA

EDUCATION

MIT, M.S., Mechanical Engineering (GPA 5.0/5.0) Sept. 2020 – May 2022 (Expected)
Folger Fellow (2020 – 2021)

University of California, Berkeley, B.S., Mechanical Engineering (GPA 3.7/4.0) Aug. 2016 – May 2020
Dean's Honors List Spring 2019, College of Engineering

SPECIAL SKILLS

Design/Modeling: SolidWorks, AutoCAD, Rhino, GD&T dimensioning and tolerancing, FEA, DFM, DFA, DFS, 3D printing, machine shop skills (end mill, lathe, etc.), soldering, laser cutting, water jet cutting.
Programming: MATLAB, Python (basic), Arduino, LaTeX, HTML, CSS.
Writing/Communication: Business plan author, essay-writing teacher (high school level), team policy debater.
Languages: English (native), French (intermediate), German (beginner), Serbo-Croatian (beginner).

PUBLICATION

J. Xu, T. Chen, **L. Zlokapa**, W. Matusik, S. Sueda, P. Agrawal, "An End-to-End Differentiable Framework for Contact-Aware Robot Design." *Robotics: Science and Systems (RSS)*, 2021. http://diffhand.csail.mit.edu/

TECHNICAL EXPERIENCE

MIT, Cambridge, Massachusetts Sept. 2020 – Present
Graduate Student Researcher under Professors W. Matusik and P. Agrawal
- Designing of tendon-driven robot manipulators based on L-system grammar using python and SolidWorks.
- Prototyping (FDM 3D printing), controlling (python), and testing manipulators' ability to perform tasks.

SuitX, Emeryville, California May 2019 – Feb. 2020
Engineering Intern
- Independently designed exoskeleton solutions that fit all body sizes for heavy lifting.
- CADded (SolidWorks), prototyped (FDM 3D printing), and performed user testing.
- Conducted SolidWorks FEA on all components and performed physical testing until failure.

Berkeley Expert Systems Technologies (BEST) Lab, UC Berkeley, California Sept. 2018 – May 2019
Research Intern, Drumming Prosthesis Project under Professor Alice Agogino
- Designed cost-effective drumming prosthetic for trans-radial amputees with 6 MEng and PhD students.
- Designed, FDM 3D printed adjustable drumstick-spring holder using BioFlex for body-powered prosthesis.

Applied BioMechanics, Alameda Island, California May 2018 – Jan. 2019
Engineering Associate in Accident Reconstruction Simulation
- Simulated vehicle collisions in HVE (dynamics software) and performed manual calculations to verify results.
- Laser scanned collision sites and vehicles and created 3D models of the scans in Rhino for 30+ court cases.

EnableTech, UC Berkeley, California Jan. 2018 – May 2018
Member, Gripper Project Team
- Designed and laser cut mechanical, cost-effective gripper in interdisciplinary team of 5 for quadriplegic user without grip strength to pick up objects from floor and shelf.

LEADERSHIP & ACTIVITIES

Human Powered Vehicles Club, UC Berkeley, California
Co-President, Frame Subteam lead Apr. 2018 – Aug. 2019
- Bike goal: design, manufacture, and race a bike at 70mph at the international IHPVA WHPSC competition.
- Managed 30-person club projects, resources, and Ford and General Motors collaboration.

Society of Women Engineers, Berkeley, California
Committee Member of the Month (March 2017), Shadow an Engineer Committee Member Jan. 2017 – May 2017
- Coordinated externships with 13 major companies, including AutoDesk.