# Lara Zlokapa

#### **OBJECTIVE**

I am passionate about innovative mechanical design that improves people's lives. I am eager to apply my skills enable and empower others to live to their full potential.

#### **EDUCATION**

## University of California, Berkeley

Aug. 2016 – May 2020 B.S., Mechanical Engineering Current GPA: 3.60 / 4.0

#### Relevant Coursework:

- Design of Planar Machinery (current)
- Manufacturing and Tolerancing (current)
- Bioinspired Design
- Solid Mechanics
- Engineering Materials
- Circuit Design
- Fluid Mechanics

#### **SPECIAL SKILLS**

#### Design

SolidWorks

Rhino

**AutoCAD** 

Dimensioning

Tolerancing

3D printing

Laser cutting

Soldering

Laser scanning

Adobe Creative Suite

#### Computer

MATLAB

Basic Arduino

Basic Python

HTML

CSS

#### **TECHNICAL EXPERIENCE**

EnableTech, UC Berkeley, CA

Jan. 2018 - Present

Member, Gripper Project Team

- Designed and laser cut mechanical, cost-effective gripper in interdisciplinary team of 5 for need-knower without grip strength to pick up objects from floor and shelf.
- 3D modeled hand grip for device in SolidWorks.

#### Human Powered Vehicle, UC Berkeley, CA

Member, Fairing Subteam

Aug. 2017 – present

- Designed, 3D modeled, and analyzed aerodynamics of tricycle fairing in SolidWorks and ANSYS in team of 5.
- Performed carbon fiber lay-ups to create frame and fairing of vehicle.
- Awards at ASME's E-Fest Human Powered Vehicle Challenge: 3<sup>rd</sup> place overall, 2<sup>nd</sup> place Design Award, and Craftsmanship Award out of 18 teams.

#### Applied BioMechanics, Alameda Island, CA

May 2018 – Present

Engineering Associate in Accident Simulation Reconstruction

- Perform and process laser scans of sites and accident collision components.
- 3D model sites and all components of accidents in Rhino for simulation.
- Analyze and reconstruct accident dynamics.

## **Berkeley Emergent Space Tensegrities (BEST) Lab,** UC Berkeley, CA *Research Intern* May 2017 – Oct. 2017

- Designed, 3D modeled (Autodesk Fusion 360), 3D printed, and directed final production of end caps with improved durability and frictionless cable movement for 6-bar spherical tensegrity robot intended for search and rescue and as rover for Jupiter's moon Titan.
- Produced end cap dimension drawings in AutoCAD.
- Worked on overall 6-bar tensegrity robot design in team of 3 Ph.D. students and 3 undergraduate students.
- Soldered and assembled over 48 motor control circuit boards for 6-bar tensegrity robot.

#### **LEADERSHIP & ACTIVITIES**

### Human Powered Vehicles Club, UC Berkeley, CA Co-President

Apr. 2018 – Present

- Lead design of bike as well as all team meetings for 30-person club.
- Create club budget, manage club expenses, and collaborate with sponsors (such as General Motors or Ford).
- Organize, schedule, and follow up on all team activities (subteam progress, sponsor relations, outreach, etc.).

### Pioneers in Engineering (PiE), UC Berkeley, CA

Jan. 2017 – May 2017

Robotics Competition Team Mentor

- Mentored team of 10 El Cerrito High School students over 8 weeks for PiE robotics competition. Guided team's game strategy and analysis, robot design process, and building of actual robot.
- Team awards: 2nd place team, PiE Season Award, Software Award finalist.