

Lara Zlokapa

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Berkeley, California, USA



EDUCATION

University of California, Berkeley

Aug. 2016 – May 2020 (Expected)

B.S., Mechanical Engineering (GPA 3.64/4.00)

Relevant Coursework: Global product development (current); mechatronics (current); bioinspired design; dynamic control systems and feedback; mechanical behavior of engineering materials; planar machinery design; engineering dynamics; fluid mechanics; solid mechanics; thermodynamics; circuit design.



SPECIAL SKILLS

Design/Modeling: SolidWorks, AutoCAD, Rhino, 3D printing, GD&T dimensioning and tolerancing, machine shop skills (end mill, lathe, etc.), soldering, laser cutting, water jet cutting, Adobe Creative Suite.

Programming: MATLAB, Python, LaTeX, HTML, CSS.

Writing/Communication: Business plan author, essay-writing teacher (high school level), team policy debater.

Languages: English (native), German (intermediate), French (intermediate), Serbo-Croatian (beginning).



TECHNICAL EXPERIENCE

Berkeley Expert Systems Technologies (BEST) Lab, UC Berkeley, California

Sept. 2018 – Present

Research Intern, Drumming Prosthesis Project under Professor Alice Agogino

- Design cost-effective drumming prosthetic for trans-radial amputees with 6 MEng and PhD students.
- Analyzed drummer survey responses to establish design criteria.
- 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.
- Prepared court exhibits based on analysis for Dr. Cheng's and Dr. Doherty's expert witness testimonies.

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.
- 3D modeled hand grip for device in SolidWorks.

Human Powered Vehicles Team, UC Berkeley, California

Member, Fairing Subteam

Aug. 2017 – Mar. 2018

- Designed and 3D modeled aerodynamic tricycle fairing in SolidWorks and Fusion 360 in team of 5.
- Analyzed aerodynamic fluid flow of fairing 3D models in ANSYS and performed vehicle carbon fiber lay-ups.
- Vehicle won 3rd place overall, 2nd place Design Award, and the Craftsmanship Award at ASME's E-Fest Human Powered Vehicle Challenge.



LEADERSHIP & ACTIVITIES

Human Powered Vehicles Club, UC Berkeley, California

Apr. 2018 – Present

Co-President

- Bike goal: design, manufacture, and race a bike at 70mph at the international IHPVA WHPSC competition.
- Organize and oversee club project management, resource management, outreach, overall timeline and scheduling, faculty sponsor coordination, subteam progress, etc. for 30-person club.
- Collaborate with sponsors such as General Motors or Ford.
- Find funding opportunities, create club budget, and oversee club expenses.

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.
- Created and evaluated applications for externships, selecting 30 out of the 60 applicants.