# YINGYING CHEN

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## EDUCATION

**University of California, Berkeley** May 2021

*B.S. Mechanical Engineering*

Coursework: MATLAB, CAD/CAM, Manufacturing and Tolerancing (GD&T), Information Devices and Systems, Systems and Signals, Engineering Mechanics (statics and dynamics), Designing for the Human Body, Mechatronics, Heat Transfer, Mechanics of Materials, Controls

## PROFESSIONAL EXPERIENCE

**Mechanical Design Intern** Longmont, CO

*Seagate Technologies* *May 2020 - August 2020*

- Designed a testing fixture to evaluate product properties to ensure compliance with company standards
- Diagnosed inaccuracies in the critical testing procedure for the product through extensive FEA simulation and analysis of previous testing fixture models

**R&D Powertrain (Calibration and Evaluation) Intern** Ann Arbor, MI

*Toyota Motor North America* *January 2020 - May 2020*

- Validated the knock control system of a variant engine had correct specifications through extensive testing and data comparison to previously established engines
- Synthesized key information about test cell organization and environment statuses to aid in a complete R&D test facilities restructure project
- Evaluated critical force for a wheelchock modification based on the drive schedules and corresponding roadload

**Summer Research Intern** Berkeley, CA

*University of California, Berkeley | BEST Lab* *June 2019 - December 2019*

- Developed an application of inertial mechanisms in six bar tensegrities for locomotion
- Modeled and designed a flywheel system in SOLIWORKS for tensegrities and manufactured system through 3D printing, laser cutting, and water jet cutting by collaborating closely with mentor and peers
- Validated system performance through tolerance analyses with FEA for assembly and physical testing

## TECHNICAL PROJECTS

**Smart Task Lighting for Construction Workers** Berkeley, CA

*Client Project with DPR Construction* *August 2018 - May 2019*

- Built a temporary contruction lighting system used to increase sustainability efforts and asset accountability while decreasing tripping hazards on construction sites
- Transformed a wired task light into a wireless unit by constructing a lithium-ion battery pack, customized 3D printed attachment, and laser cut battery case in-house
- Awarded first place at the National Society of Women Engineers Team Tech Competition

**Voice Controlled Car using Closed Loop Controls and PCA Classification** Berkeley, CA

*Controls, Group Class Project* *August 2018 - December 2018*

- Optimized word classification by constructing a mic board circuit and implementing a band pass filter
- Introduced open and closed loop controllers to correct steady state errors
- Collected and analyzed data using PCA and k-means to reduce noise and cluster into respective words with Python

## LEADERSHIP EXPERIENCE

**Cal Dragon Boat** Berkeley, CA

*Team Captain / President* *January 2019 - December 2019*

- Directed a group of 60+ paddlers by managing logistics for national and international racees
- Created a balanced environment of competitiveness and team engagement for a cohesive community and increased retention rate from 70% to 95%

**Society of Women Engineers** Berkeley, CA

*Career Options Co-Officer, Team Tech Co-Officer, PR Officer* *January 2019 - present*

- Utilized relationships with club alumni and company recruiters to create opportunites for undergraduates to connect with graduate students and industry professionals
- Established a cohesive brand image for the Berkeley SWE section

## SKILLS AND INTERESTS

**Technical:** *Advanced* SOLIDWORKS, AutoCAD | *Proficient* Python, MATLAB | *Familiar* Java
**Other:** *Advanced* Microsoft Office, Adobe Illustrator | *Proficient* Adobe Photoshop, Adobe InDesign
**Languages:** Mandarin (writing - proficient, reading - proficient, speaking - advanced)
**Interests:** Hiking, Basketball, Digital Art, Watching Cat Videos