MICHELLE CHOW

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Available to work Spring and Summer 2024 (Jan thru July)

EDUCATION

UNIVERSITY of CALIFORNIA, BERKELEY Berkeley, CA

Mechanical Engineering B.S.; Minor in Computer Science Expected Graduation: May 2025

Sophomore, Cumulative GPA: 3.7/4.0

Coursework: Statistics & Data Science, Programming, Data Structures, CAD, Thermodynamics, Solid Mechanics, Fluid Mechanics, Manufacturing & Design Communication, Engineering Materials, Electronics of IoT, Rigid Body Dynamics

Soft Skills: Extremely self-sufficient, highly organized and detail oriented, team player, strong presentation skills
Engineering Skills: Proficient in Solidworks; Familiar with Machining and Carbon Fiber Manufacturing
Programming Skills: Proficient in Java, C, C++, Python, MATLAB, R; Familiar with Raspberry Pi, Arduino, and Github
Creative Skills: Proficient in Photoshop, Graphic Design; Baking, Photography
Languages: Fluent in English; Conversational Proficiency in Cantonese; Basic Understanding in Spanish and Mandarin

ACTIVITIES

THE ANIMAL FLIGHT LAB (Professor Robert Dudley) Berkeley, CA

Student Researcher Sep 2022 – Present

- Using fluid mechanics to study insect flight evolution by analyzing flight paths of projectiles crafted with different wings
- Practicing self advocacy: taking responsibility over the timeline, plan, and direction of the project, while consulting with the professor and teammates to cross check my work and drive the project to completion

UC BERKELEY FORMULA SAE Berkeley, CA

Brakes and Driver Interface Engineer Oct 2021 – June 2022

- Designed and manufactured a new seat: 3D modeled on Solidworks, mirrored to create and 3D print a mold, built the seat with carbon fiber, and designed and machined new hardware to work with the new seat
- Used FEA on Solidworks to aid design and analysis of brake rotors, throttle pedal, and pedal tray
- Learned and assisted in brake line maintenance during competition: changing tubes and flushing brake fluid
- Developed strong analytical skills through engineering design process, having to: analyze feedback to identify problems in current product, research new and existing designs to develop a strategic solution to the problems, present tradeoffs and opportunities of my suggested design to leadership, and use feedback to revise and complete the project

UNIVERSITY PROJECTS

CAT NAPS WITH JERRY: Random World Generation Game (Data Structures Class) Aug 2022 - Dec 2022

- Practiced software engineering skills to design and build a world exploration game engine in Java
- Created custom objects & algorithms to generate random worlds within desired constraints, and game functionality such as character control and saving and loading game progress
- Worked with a partner practicing software engineering design process: discussing relevant features and data structures, creating a timeline and defining team roles, working off a large shared code project and meeting weekly to share progress
- Video demonstration: https://youtu.be/koMjpe3i-8w

DOSIMETER (Manufacturing and Design Communication Class) Mar 2022 - May 2022

- Designed and manufactured a device to fill and measure syringes to streamline vaccine administration, working through design iterations from design reviews, then making engineering drawings with GD&T to machine a working prototype

REMOTE CONTROL TOY CAR (Community College) Mar 2020 - May 2020

- Designed and built a car during COVID lockdown using cardboard, paperclips, and rubber bands
- Programmed a Raspberry Pi with Python to controlled a servo and DC motor through an H-bridge

WORK EXPERIENCE

GIRLS WHO CODE (International Web Development Program) Virtual

Teaching Assistant Jul 2022 – Aug 2022

- Assisted a virtual classroom of 54 international high school girls teaching HTML/CSS/JS web development
- Led the planning, development, and execution of students' web development projects: hosting meetings, maintaining project roadmaps, working closely with individual students to organize tasks, and document and report progress to teaching team
- Learned to work quickly and adapt to the changing needs of students by coming up with creative solutions on the spot, then sharing issues with the teaching team to develop and employ new teaching methods in lessons the next day