ALEXIS WEI

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EDUCATION:

UC Berkeley | Dec 2021
Mechancial Engineering & EECS

COURSEWORK:

E 128 - Adv Engineering Graphics
E 26 - 3D Modelling
E 27 - Manufacturing & Tolerancing
ME 104 - Mechanics II
ME 100 - Electrionics for IoT
ME 40 - Thermodynamics
ME C178 - Design for the Human Body
Stanford Machine Learning
Self-Driving Decal

LANGUAGES:

Python, Java/C/C++, JavaScript,
MATLAB, Swift, CSS /HTML, SQL

TECHNOLOGIES:

Solidworks / Fusion 360
3D Printing / CNC Machining
Adam's Car / ANSYS
Tensorflow / Keras / PyTorch
OpenCV / Google Vision API
NumPy / GraphQL
React.js / Gatsby
Firebase / MongoDB
Adobe Design Suite / Figma

JUST FOR FUN

Fellow @ Rewriting the Code
Graphic Designer @ Innovative Design
Samsung UVenture Top 10 Finalist

INTERESTS:

Robotics, Artificial Intelligence,
Transformative Product Design,
Graphic Design, Architecture
Swimming, Baking Cookies!

EXPERIENCES

ACADEMIC INTERN : Berkeley EECS Department | since Feb 2020

- Reinforcing concepts such as **git**, **hashing** and **sorting algorithms** for students in Data Structures, through assisting with lab and homework assignments

CHASSIS ENGINEER : Berkeley Formula Electric | since Jan 2020

- Designed cooling system within the accumulator casing to safely contain and protect battery modules from external heat, water, and collisions
- Researched and modelled a steering wheel design in **Fusion 360**, while optimizing weight, durability, driver controls and ergonomics
- Built an adjustable rig from 80/20 for seat testing and spaceframe constraints

MECHANICAL ENGINEERING INTERN : Arris Composites | May 2019 - May 2020

- Prototyped and 3D printed multiple designs of a modular tape dispenser for handling fragile material of various carbon fibre compositions
- Designed various mechanical components in **Solidworks** within manufacturing cells which had functions of heat protection, ventilation, and stabilization
- Programmed a movement seqenuce for **FANUC Robotic arms** in **KAREL** which is a crucial component of the MVP cell, and used to speed up future R&D testing
- Conducted cell testing to ensure perfect program integration into the system, interface, and PLC

UNDERGRADUATE RESEARCHER : Berkeley BEST Lab | Aug 2019 - Jan 2020

- Prototyped spherical tensegrity robots for space exploration and disaster relief in collaboration with NASA and Squishy Robotics
- Developed a system with **Arduino** and force sensors to collect testing results that could reflect the impact force on both the robot and the impact surface

PROJECTS

CULINARY SOCIAL MEDIA PLATFORM - OM NOM | Hack:now - Ongoing

- Created a platform for sharing and discovering recipes, chefs and resturants
- Uses **OpenCV** and **Swift** to identify available ingrdients through mobile cameras
- Web platform developed with **React.js**, **Material UI**, and **MongoDB Atlas**

LEGACY | Early 2020

- Created an Income Share Agreement platform that connects alumni to students to support their studies and future potentials both financially and experientially
- Branded through logo design, color palette selection & graphics illustration
- Wireframed with **Adobe XD**, build with **React.js**, and deployed with **Firebase**
- Finalist of the Berkeley Big Ideas Competition + YC start-up school participant
- take a look and visit : joinlegacy.io

CONTROLLABLE COLOR CHANGING LIGHT SYSTEM | Late 2019

- Connected the ESP32, light, temperature and humidity sensors to communicate through Wi-Fi and control multiple LED light strips
- Programmed in **Python**