MAX GINSBERG

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EDUCATION

University of Southern California, *Los Angeles, CA* **Expected Dec 2022**

B.S. Biomedical (Electrical) Engineering, Minor Entrepreneurship **GPA: 3.6**

EXPERIENCE

Accenture, Technology Analyst – Los Angeles, CA **Jun – Aug 2022**

- Enriched legacy data during a 4-to-1 product lifecycle management system data migration using SQL and Python.
- Analyzed revision data to standardize data migration mappings and ensure consistency in new client systems.
- Pioneered a solution to curb carbon emissions from food waste through pro-bono work for 501c3 FoodCycleLA.

Edwards Lifesciences, Data Science and Algorithms Intern – Irvine, CA **May – Aug 2021**

- Developed a modular, user-friendly data cleaning and dashboard visualization tool to view live data in any ongoing or finished data collection trial using Python, Plotly Dash, and HTML.
- Discovered new features and revealed biases in current algorithm development by applying machine learning (univariate logistic regression) onto dashboard and extracting best collected features for disease classification.

USC Makers, Director of Events – Los Angeles, CA **Aug 2019 – May 2022**

- Led the premier embedded systems IoT club to increase budget by 3x, engagement by 3x, and project scope by 2x
- Awarded $8k from Qualcomm and Microsoft after Spring Showcase 2021, our club's first corporate sponsors.
- Formed and led a committee of 5 members to ensure consistent quality and quantity of events.

AWARDS & PROJECTS

lafoodlist.com **Apr 2022 - Present**

- Designed and coded a website to display 200+ handpicked restaurant locations, reviews, photos+ in ReactJS.
- Created dynamic Google maps, photo lists, and page animations all subject to user input and personal preference.

RxMinder, Team Lead **Jan - Apr 2022**

- Built an IoT automatic pill dispenser with a frontend interface for elderly patients using NodeJS, React, Arduino.
- Acquired patient's medication schedule to correctly dispense pills at the correct time, notify patients + caregivers when it was time to take medication, and monitor patient's daily progress in an easy to use front end web page.
- Led team direction and taught CAD, web development, Arduino to teammates.

Wordle Bot(s) **Feb - Apr 2022**

- Developed a SlackBot server to keep track of my friends' and my wordle scores and display a leaderboard.
- Used NodeJS and Firebase to host a server, perform calculations, and keep track of everyone's scores day by day with their copied wordle messages.
- Constructed a second algorithm with Python to solve Wordle and post its score daily. AvgScore = 3.669

Compost-O-Matic, Software Team Lead **Jan - Apr 2022**

- Engineered an IoT compost monitoring system to ensure healthy compost for sustainable home gardening.
- Developed a backend server with NodeJS which communicated with the Arduino and front end, performed calculations, and estimated future compost metrics using machine learning.
- Aligned the embedded, backend, and frontend teams to the same vision and ensured cohesive development.

Apollo, DrChrono's Virtual Healthcare Hackathon 2021**,** *2nd Prize / 500 participants* **Jan 2021**

- Created mobile and web apps using JavaScript and React for patients to send their Apple Watch data to doctors.
- Visualized the Apple Health data into interactive graphs of users' steps, heart rate, blood pressure, blood glucose, and sleep with a selectable range of calendar dates.

SKILLS

- Python, React, JavaScript, NodeJS, C++, SQL, IoT, MATLAB, Verilog, Java, Entrepreneurship
- Bilingual: English (native), Spanish (professional) — Know the best taco stands and ramen spots in Los Angeles

Counselor and Event Coordinator, Camp Harmony – Malibu, CA **Winter 2015 – Winter 2018**

- Selected as a counselor by a non-profit summer and winter camp that works with underprivileged and homeless children from 400+ families.
- Lead Camp Harmony efforts year-round by coordinating and planning events outside of the main summer and winter camps with a small cohort of 50 other counselors.
- Assisted in fundraising our $200,000+ budget to put on big camps and events over 2 years.

Summer Woodworking **Summer 2018-Present**

- Constructed three opening-door shadow-boxes for signed jerseys worn traditionally on game days, a large folding table for my apartment, and a magnetic knife rack for my family's kitchen.
- Taught myself woodworking, sketched complex designs, 3D-printed parts, and painted the projects.

Project Apollo **Fall 2019-Spring 2020**

- Creating a MIDI-controlled electronic guitar in Makers Engineering Club
- CNC'ed a wooden frame, 3D printed supports, and made Arduinos to convert the sound pickups

Stu$_2$ Business Pitch Competition **Fall 2019**

- Created a business driven on connecting college students for the exchange of services or teaching of skills.
- Designed a one-pager and "Kickstarter" video, explaining and framing the business to potential "investors".

Food Writer, Daily Trojan – Los Angeles, CA **Fall 2019 – Present**

- Author quarterly restaurant reviews on the best restaurants in Los Angeles for the Daily Trojan.
- Assist other on-campus food organizations to publish their Daily Trojan snippets.

Research Assistant, Rancho Los Amigos National Rehabilitation Center – Downey, CA **Summer 2017**

- Created code to interpret over 20,000 pharmaceutical data entries and expedite research findings.
- Analyzed opiate dosages and prescriptions for spinal cord injury patients to show the opiate prescription data miscommunication between pharmacies and doctors.
- Interacted closely with 10+ patients and 3+ doctors doing research and practicing.

Boeing Design Challenge, *Finalist* **March 2019**

- Crafted a plan for a spaceship to retrieve a sample of an asteroid and presented it to Boeing VPs.
- Chosen as 1 of 5 finalists out of over 40 competing groups.

Smart Lock **Aug-Dec 2020**

- Created an IoT deadbolt lock controlled by your smartphone or any other internet connected device.
- Designed the mechanical aspect of the lock and fully assembled the electronics in cohesion with the mechanics.

Therabox, Associated Students of Biomedical Engineering Makeathon**,** *4th Prize* **Feb 2020**

- Constructed a therapeutic "puzzle box" for hemipelagic stroke patients struggling from muscular dystrophy.
- Fabricated the box in 36 hours using Fusion360, laser cutters, and bandsaws.

Instructor, Planet Bravo Summer Camp – Beverly Hills, CA **May 2016 – Aug 2019**

- Taught 100+ students Java, Fusion360, 3D printing, Unreal Engine, Unity, and Scratch.
- Debugged student coding errors and worked with them individually to better understand computer software.

Aerolyzer, Associated Students of Biomedical Engineering Makeathon**,** *Most Innovative* **Feb 2021**

- Wired and coded an arduino + ultrasonic sensor to detect oxygen concentration in the air.
- Crafted a business plan to manufacture and ship aerolyzers to low resource communities globally for cheap oxygen analysis in the midst of the COVID-19 pandemic.

Pass the Butter Robot **Jan – May 2021**

- Created and fabricated a robot inspired by Rick and Morty to pass a butter tray across a table.

Designed a moving head + arm mechanism and organized the physical layout of the robot prior to assembly.

Circadian Rhythm Mouse Imaging Project **Nov - Dec 2019**

- Analyzed an open-source dataset with Python to prove the circadian rhythm of a mouse brain to be 24 hours.
- Used Bokeh and Bebi103 libraries to calculate intensity values of the fluorescent protein Venus in the SCN over time, defined in user-chosen ROIs.

USC Makers Spring Showcase 2021 **Apr - May 2021**

- Managed 20+ club members to livestream a project showcase for 300+ live virtual audience.

Animated graphics, rigorously tested technology, and created a professional image for the young club.