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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  | | --- | | ExperienceSales Advisor | Office Depot | July 2020 – September 2020  * Connected customers with proper tech solutions. * Supervised and sold many high-ticket purchases. * Provided excellent customer service.  Solutions Advisor | Office Depot | September 2020 – May 2021  * Worked as a shift lead with a team of over six. * Oversaw the personal computing section. * Lead the store in tech sales. * Serviced computers which involved: RAM swaps, Hard drive backups, and virus diagnostics.  EducationHigh School Diploma | June 2019 | Leigh High School Coursework: AP Biology, AP literature, AP language and composition, AP environmental science, and economics. No Degree| 2019 - 2021 | San Jose State University Coursework: Economics, Marketing, Business Law, Accounting, Finance, and international business.  economics. In Progress| 2021 - Present | Cal Poly Pomona Coursework: Consumer behavior, Operational management, Organizational behavior, Programming for business analytics, Database management. | | |  | | --- | | ObjectiveLooking to work in fast paced environment where I can learn more about marketing and/or software. | | Skills  * Able to work with large databases * Proficient Python, C++, and Bash programmer * Strong communicator  |  |  | | --- | --- | |  |  | | dandemoney@gmail.com | 408-444-3650 | |  |  | | linkedin.com/in/daniel-demoney-02929016b/ |  |   Github:  https://github.com/dmoneybags | |

Project Hatchery

October 2021 – Present

Cal Poly Pomona

Project Hatchery is a club in which students work to earn university funding for research or potential start-ups. My team, consisting of myself and my friend, is designing a product which we call the “Apollo Ring”. The ring uses a flexible PCB containing an oximeter, Bluetooth chip, and a microprocessor containing algorithms from Maxim Integrated. With all these components the ring will be able to measure Heart Rate, Heart Rate Variability, Saturated Oxygen, and most importantly Blood Pressure. With calibration, the algorithms from Maxim would allow us to create the first continuous real time blood pressure monitor, allowing individuals with hypertension, heart disease, and diabetes to be constantly aware of their blood pressure, giving them the data to make better decisions. We have already: sent PCB schematics and parts to China for prototype manufacturing, created a fully functional iPhone app, and planned out our finances.

Project Lead-The-Way

August 2018 – June 2019

Leigh High School

PLTW was the engineering initiative at my high school in which groups competed to create the most impressive product, with the constraint of using a given cutting edge technology. Our first project involved the use of flexible PCB, and our idea was to create a “Smart-Pacifier”. The pacifier contained a small resistor connected to a Bluetooth module and a microprocessor. The resistor would allow for temperature readings to be sent via Bluetooth to a companion iPhone app, so parents could know when their infant had a fever. The second project involved the use of 3D printing, so we decided to make an updated design of a traditional finger splint. The device consisted of three 3D printed sections, one for each bone within the finger. The sections could interconnect and be set to be locked or unlocked. This allowed users to allow movement between uninjured joints but lock injured joints for recovery.

Pokémon Ai

February 2022 – Present

Pokémon showdown is an open-source JavaScript library used to power the most popular online Pokémon battling website. Using their source code, I am creating an adversarial training experiment, in which I randomly generate two Actor-Critic nets and play them against each other with random teams. So far, the nets have been able to beat a random player 96% of the time, and “Greedy” player (coded to always execute the max damage move) 70% of the time. I hope to keep working on the experiment and deploy the bot online, to see its performance against real players.

ECG-Net

<https://github.com/dmoneybags/ECGNET>

September 2021 – November 2021

After reading about the data collection from this paper: <https://www.nature.com/articles/s41597-020-0386-x> I decided to try my hand at a convolutional neural net to analyze the signals and classify them as a type of heart rate rhythm. My model was structured as a traditional computer vision model with alternating convolutional and max pooling layers, finally connecting to a dense head. After four epochs of training, the model was able to reach 85% accuracy. This 85% accuracy was a milestone for me, as it is only 5% below the AHA standard for rhythm classification (90%).

2048 Reinforcement Learning

<https://github.com/dmoneybags/2048>

May 2021 – July 2021

Machine learning has always been a fascination of mine, and after some small-scale supervised learning projects, I decided to tackle a more sophisticated reinforcement learning experiment. I chose 2048 because the state is easily numerically represented, and the strategy is simple to learn. I chose Actor-Critic as the structure for the net, as the importance of state value estimation has been shown by both AlphaGo and AlphaZero. I coded my own version of 2048 which could be used to train the net quickly, and after training the net for 60000 episodes, I was able to reach 2048.