Justin Zhang

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EDUCATION

University of California, Merced, School of Engineering **Graduation Date:** June 2020
***Major**: B.S. in Computer Science and Engineering* **GPA**: 3.3
***Minor**: Business and Management* **Honors:** Dean's List
Computer Science and Engineering Relevant Courses: Algorithm Design and Analysis, Data Structures, Operating Systems, Intro to Object Orient Programming, Introduction to Artificial Intelligence, Discrete Mathematics, Computer Organization and Assembly, Computer Graphics, Computer and Networks Security

SKILLS

Programming Language: Python, HTML, CSS , Java, JavaScript , C++, Swift
Machine Language: Arduino, Raspberry Pi, Python Flask
Operating System: Windows XP, Windows 7,8,10, Mac OS, Linux, Ubuntu
Spoken Language: Fluent – English and Mandarin, Professional – Japanese

EXPERIENCE

University of California Merced - Full Stack Software Engineering Intern **February 2020 – June 2020**
- Created a server/website using HTML and CSS connecting it to Raspberry Pi as a **Front-end**
- Written code in python through Python Flask as a **Back-end** controlling the Raspberry Pi
- Mentee under a former **Google Employee** learning both Front-end and **Back-end** mechanics

Lawrence Livermore National Laboratory - Data Scientist Intern **May 2019 – July 2019**
- Analyzed large data-set using python through **reinforcement learning** and applying it to real-life simulations
- Coded a policy in virtual environment visualizing the **neural network** through graphs and decision trees
- Utilized all git commands as main source of sharing resources between teams

University of California Merced Machine/Reinforcement Learning Intern **March 2019 – August 2019**
- Utilized libraries from **Amazon Web Service (AWS)** and Intel coach environment package as a base for HAVC (Heating, Ventilation and Air Conditioning)
- Designed and built multiple **Deep Reinforcement Learning** models for controlling HVAC, light, and window system in a whole building simulator;
- Implemented and modified **Deep Q Network**, **Dueling Deep Q Network** and Branching Dueling Deep Q Network to adapt for high-dimension action tasks by using Python, **TensorFlow** and Gym;

University of California Merced - Networked Embedded Systems Intern **September 2018 – March 2019**
- Modified wireless sensors **LoRA** and **LoRaWan** expanding the network server
- Implemented C/C++ through **Arduino** connecting hundreds of sensors and modifying it individually
- Operated with **TCP/IP LoRaWan** to connected Gateway accessing the network server

CS PROJECTS

Full-Stack Web Application - Hospital Management **December 2019**
- Developed a **full-stack** web application platform allowing the user to Create,Read,Edit and Delete (CRED) data
- Used **Python Flask** to import large data from **CVS** and used **MySQL** as a **database** to store users information
- Utilized JavaScript for **front-end** and used **BootStrap, HTML, CSS** to design the **front-end**

IOS App Developed – KeepUpWithLife **February 2019**
- Developed a to-do list with easy interacting UI for daily life usage
- Designed and written in Swift, consumes a Core Data Stack which helps manage and save to-do's

Backend/Frontend – TruckAlert – Bihai Empreedimentos e Participaçõs Ltda **February 2019**
- Developed an app for a company that provides relevant information to assists trucker
- Collaborated in a team of 3 storing database in **SQL** and **GIS** using Django
- Implemented ***Map Quest*** **API** and ***Leaflet*** **plug-in** for map visualization and re-calculation

Google Extension – Introduction to Google Chrome **September 2018**
- Designed two UI pop-up satisfying Mac and Windows users walking them through basic shortcuts of Chrome
- Implemented CSS and HTML through Visual Studio Code to design both user interface

Game Developed – Monster Fighter **April 2018**
- Designed and created 2D role playing action game and generated graphics by using C++ and OpenGL
- Applied Object-oriented Programming concepts: encapsulation, composition, inheritance, and polymorphism