

Fernando Vazquez

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Objective

Senior at UC San Diego looking to obtain a challenging software engineering position where I can apply my skills and insights to exceed expectations; A place that offers growth as a computer scientist with a collaborative team setting

EDUCATION

UNIVERSITY OF CALIFORNIA, SAN DIEGO – LA JOLLA, CA

SEP 2018 – Present

- Bachelor of Science, Computer Engineering
- Expected Graduation: June 2021

GPA: 3.213

SKILLS & ABILITIES

Technical

- Excel · PowerPoint · Eagle · Altium Designer · Vim · Linux/Unix · Git · React · ESLint · Webstorm · IntelliJ
- Circle CI · NodeJS · Python · C · C++ · Java · JavaScript · Perl · SQL · PSpice · Oscilloscope · Waveform generator
- Verilog · Assembly · GDB · Valgrind · PyTorch

Relevant Coursework

Advanced Data Structures · Advanced Software Engineering · Circuits and Systems · Components and Design Techniques for Digital Systems · Data Science in Practice · Design and Analysis of Algorithms · Linear Systems Fundamentals · Principal of Computer Operating Systems · Theory of Computation · Intro to Machine Learning

EXPERIENCE

Research Assistant | Scripps Orbit and Permanent Array Center (SOPAC) | 6/2019 – Present

- Used python Flask framework to build and develop a web application that communicates to a database using SQL queries
- Used Python to web scrape, gather, and collect data from the institution archives to update and modify files using regular expressions for string parsing

Student Avionics Engineer | Rocket Propulsion Laboratory (RPL) | 8/2019 – 6/2019

- Worked in redesigning, testing, and implementing an engine controller unit
- Designed a BJT transistor array PCB to properly toggle relays by making schematics, footprint finding, and routing in Altium Designer
- Designed an INA326 instrumentation amplifier array PCB to amplify pressure transducer readings

Warehouse Logistics & IT | Socksmith Design | 3/2016 – 9/2018

- Established new company workstations, setting up user profiles in the database and setting their appropriate permissions with the inventory software used via remote desktop connections
- Overlooked inventory and fix any issues and bugs in the system using SQL, excel, and python scripts

PROJECTS

Basic Computer Processing Unit | 11/2020

- Constructed a basic pipelined CPU using Verilog that would execute basic arithmetic programs to support a self-designed ISA

Tab Manager Chrome Extension | 3/2020

- Worked with a team to develop an open-source chrome extension where I developed the tab React component in

Chicago Police Dispatch Correlation Report | 2/2020

- Developed a Jupyter notebook with a team where we cleansed data found from Kaggle using a pandas dataframe
- Generated a heatmap and line graphs for visualization using matplotlib and numpy to analyze results

File Compressor/Decompressor | 3/2019

- Implemented the BFS algorithm in C++ to traverse a list of concerts to report to the user concerts that could be attended given two distinct dates in San Diego using domestic data from Concert Archives

Self-Sustained Greenhouse Garden | 11/2018

- Designed and programmed a microcontroller to operate the circuit controlling the watering system, ventilation system, and humidity of the garden by receiving data from various data gathering devices