Oliver Vazquez

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Education

Northeastern University
BS in Computer Engineering &
Computer Science December '21
Boston, MA | GPA 3.67

Relevant Coursework

Computer Architecture*
Artificial Intelligence
Software Development
Networks & Distributed Systems
Object Oriented Design
Computer Systems
Algorithms
Fund. Computer Science I/II
Advanced Digital Design
Digital Logic Design &
Computer Organization
Indicates Current Enrollment

Skills

Software
Proficient: Python, C++, C,
JavaScript, Java
Familiar: Bash, Verilog,
x86 Assembly

Tools & Frameworks
Proficient: React, Git, Unix,
GoogleTest, Behave, JUnit

Familiar: Flask, React, Node,
Keras, Figma, Firebase

Honors

Dean's List
Spring '18, Fall '18, Spring '19,
Spring '20, Spring '21
Dean's Scholarship
Fall '17

Experience

Portal Instruments   Cambridge, MA / my apartment
Software Engineering Co-op   Jul '20 – Jan '21
- Implemented error handling to prevent unwanted i2c communication shutdowns in the event of a falsely detected Electrostatic Discharge event
- Upgraded device logging to correctly parse time-series data and record the device's hardware information
- Improved test coverage for new features using GoogleTest and Behave

New Age Micro   Mansfield, MA
Computer Engineering Co-op   Jul '19 – Dec '19
- Built a long-term test setup to stress test a communication protocol between Bedrock Automation programmable logic controllers (PLCs) and older Rockwell Automation PLCs
- Designed software to exchange continuously generated random numbers between devices, verify their correctness, and log any error occurrences, this software ran successfully over several weeks to demonstrate reliability
- Upgraded outdated test protocols and removed unnecessary tests to greatly reduce the amount of time required for a full regression test

Northeastern University   Boston, MA
Research Assistant   Sep '18 – May '19
- Assisted with the fabrication of microscopic magnetic resonators using a Physical Vapor Deposition (PVD) machine
- Evaluated performance using a MATLAB script and a probe to analyze the resonator's response at a range of frequencies

Projects

Spotify Playlist Generator   Personal Project
github.com/olivervz/spotify-playlist-app   Jan '21
- Built a React/Node app for fully random Spotify playlist generation
- Utilized the Spotify API and OAuth to provide users the ability to generate fully random playlists on their Spotify account

Pneumonia Neural Network   Artificial Intelligence Term Project
github.com/olivervz/Pneumonia-Neural-Network   Apr '21
- Built Convolutional Neural Network to identify the presence of bacterial and viral Pneumonia in Chest X-rays, reached an 85% accuracy.
- Performed data analysis on output to observe a 99.48% true positive rate.

Greenswitch   NASA Space Apps Hackathon
github.com/olivervz/greenswitch   Oct '19
- Built Flask application and used NASA solar irradiance and wind speed APIs to compare alternate solutions based on a user's geographical location.