Andres Rodriguez Michel

Details

Location

Phone

Email

GitHub
Dosx001
Personal Website (WIP)
Dosx001.github.io

Education

California Polytechnic
State University
San Luis Obispo, CA
Bachelor of Art, Physics

Languages

Python, TypeScript, C++, HTML,
JavaScript, Lua, Rust, Bash,
VimScript, CSS, SCSS, MATLAB

Skills

Git, AWS, Markdown, CMake,
Makefile, Arduino

Software

Docker, PostgreSQL, VirtualBox,
Photoshop, Microsoft Office,
LabVIEW, winget

Operating Systems

Linux: Arch, Ubuntu, Red Hat
Windows: 10, 8, 7

Libraries

Next.js, React, Selenium, Matplotlib,
NumPy, jQuery, Google Test, CV2,
MSS, Tesseract, FuzzyWuzzy,
Prisma, tRPC, Zod, NextAuth,
PyAutoGUI

This resume was created using
HTML & CSS

Work Experience

BAE Systems: Software Engineer — **Winter 2022 - Present**
- Integrate and test Linux software on military equipment
- Utilize simulation tools to test software on embedded and virtual environments
- Examine teammates' code to ensure military and product specifications

BEACON: Student Assistant — **Summer 2017 - Fall 2019**
- Assisted creating an array of radio antennas to detect high energy cosmic neutrinos
- Independently worked on simulating, prototyping, and constructing antennas
- Analyzed hundreds of simulations using Python, Matplotlib, and NumPy
- Communicated with a diverse multidisciplinary team from three universities

Personal Projects

GI-Artifact-Leveler: Documentation & Source Code — **Fall 2021**
- Designed an algorithm that optimizes upgrading gear in the game Genshin Impact
- Produced a Python script with PyAutoGUI to automate in-game mouse actions
- Employed Tesseract, MSS, CV2 to capture and read onscreen images in real time

AnimeCalendar: Documentation & Source Code — **Winter 2020 - Present**
- Created a customizable calendar allowing users to pick from currently airing anime
- Provided a quick access to each anime stream like Hulu, YouTube, Crunchyroll, etc.
- Programmed a event handler to record and display user watch history
- Built a responsive website with native JavaScript, HTML, CSS, TypeScript, SCSS
- Deployed Selenium and cURL to web scrape cover art, streams links, and air times

GitPrompt: Documentation & Source Code — **Fall 2020 - Summer 2021**
- Developed an open source CLI tool that color codes files at various git stages
- Adjusted user Linux prompt displaying latest commit log, total stashes, branch, etc.
- Coded a multithreaded C++ program with object oriented programming and pipes

Relevant Coursework

Data Structures & Fundamentals of Computer Science — **Spring 2020**
- Implemented various data structures using object oriented programming
- Performed unit testing for code using the PyUnit framework and Coverage.py
- Aided dozens of peers by debugging projects and answering questions

Advanced Instrumentation in Experimental Physics — **Spring 2020**
- Constructed basic collision-avoiding robot using motors, sonar, and LabVIEW
- Programmed an Arduino to measure temperature change using humidity sensors
- Automate categorizing filter type from input signals using LabVIEW

Quantum Physics Laboratory I & II — **Fall 2018 & Winter 2019**
- Integrated Python in weekly technical reports for data visualization and analysis
- Delivered technical presentations using lab findings related to quantum events
- Handled various equipment like oscilloscopes, signal generators, multimeters, etc.

Physics on the Computer — **Spring 2018**
- Solved complex physics problems by coding simulations and data manipulation
- Utilized numerical methods like Monte-Carlo, interpolation, optimization, etc.

Leadership Experience

Cal Poly Chess Club: Event Coordinator — **Fall 2017 - Spring 2018**
- Collaborated with cabinet to plan and organize public events

Ballet Folklórico de Cal Poly: Public Relations — **Fall 2016 - Spring 2017**
- Maintained the public image and online presence of the club