

# 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, Bash, VimScript,  
CSS, SCSS, LabVIEW, MATLAB

## Operating Systems

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

## Frameworks

PyUnit, Selenium, Bootstrap,  
Django, Electron

## Libraries

React, Matplotlib, NumPy, jQuery,  
Coverage.py, Google Test, CV2,  
MSS, Tesseract, FuzzyWuzzy,  
PyAutoGUI, Mousetrap

## Other

Git, Vim, VS Code, Markdown, npm,  
CMake, Makefile, winget, Arduino,  
Photoshop, Microsoft Office, AJAX

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 to automate mouse actions in in-game menu
- Employed tools to capture and read onscreen images in real time
- Utilized libraries such as Tesseract, MSS, CV2, FuzzyWuzzy, PyAutoGUI

**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