

# 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, soldering, CAD

## Software

PostgreSQL, VirtualBox, Docker,  
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**

Jan 2021 - 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**

Jun 2017 - Aug 2020

- 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

**Anical:** [Documentation](#)

Aug 2022 - Present

- Building a full stack Next web app, successor to Anime Calendar
- Created a login and authentication system using NextAuth
- Store and manage user info using AWS PostgreSQL database
- Designed an end-to-end type safe full stack with TypeScript, tRPC, Prisma, and Zod

**AnimeCalendar:** [Documentation & Source Code](#)

Jan 2021 - Aug 2022

- 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 TypeScript, SCSS, and HTML
- Deployed Selenium and cURL to web scrape cover art, stream links, air times, etc.

**GI-Artifact-Levelers:** [Documentation & Source Code](#)

Nov 2021 - Dec 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

**GitPrompt:** [Documentation & Source Code](#)

Jul 2020 - May 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**

Apr 2020 - Jul 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**

Apr 2020 - Jul 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

**Physics on the Computer**

Apr 2018 - Jul 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**

Aug 2017 - Jul 2018

- Collaborated with cabinet to plan and organize public events

**Ballet Folklórico de Cal Poly: Public Relations**

Aug 2016 - Jul 2017

- Maintained the public image and online presence of the club