# Nathaniel Betancourt

#### **EDUCATION**

### Western Governors University,

Bachelor's of Science in Software Development

## Expected Grad. Date: 2022

#### **SOFTWARE PROJECTS**

# Intoro Kokyu

A music streaming service that I created that allows you to create your own account, browse music, and make vour own playlists!

- MySQL/PHP for client registration and authentication, account management, playlists and media upload
- Ajax utilized to allow the ability to hear audio through the use of the music player/bar
- JavaScript/JQuery used for music bar and navigation

## FreyBot, Node.JS, DiscordAPI, MongoDB

A bot that I wrote using Node.JS while utilizing DiscordAPI. This bot would allow anyone within the server to have the ability to have their inputs automated and made it easier for most actions to be executed (music playing, kick/ban, etc)

- Uses Node.JS for the use of commands and automation of inputs
- Utilizes MongoDB to allow users to 'trade' with a mock currency and exchange system

# JS Blockchain, Javascript

I wrote a blockchain using Javascript for this project to learn how blockchain and cryptocurrency works on a fundamental level.

- Learned security basics of blockchain by using functions that validate integrity of blocks and their hashcodes
- Has the ability to create new blocks with hash validation as well

### **NES Emulator WIP, C++**

An NES Emulator I wrote from scratch in C++. This would allow me to play NES games without the need for the actual physical console in my possession.

- 6502 CPU Emulation written to allow emulator to function
- Mappers and ROM support added to allow games to be ripped from cartridge and become playable without the use of an external console
- PPU used to allow rendering of foreground and background

# **EMPLOYMENT**

| <b>H&amp;M</b> , Retail Advisor                         | Jun 2021 – present  |
|---|---------------------|
| Starbucks, Barista                                      | Oct 2020 – Jun 2021 |
| Florida Department of Corrections, Correctional Officer | May 2019 – Jun 2020 |
| Pompano Ford Lincoln, BDC Agent                         | Mar 2018 – May 2019 |
| Best Buy, Customer Service Agent                        | Jan 2017 – Mar 2018 |

#### **SKILLS**

**Technical Skills** (C++, Node.JS, MongoDB, AWS, HTML, CSS, Javascript, Git/GitHub, SQL), **Art Technology** (Adobe Lightroom, Sony Vegas Pro, Adobe Photoshop)