# **Jared Rosario**

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### **Experience**

#### Vegas STEM Lab - Student Mentor

May 2023 - June 2023

- Mentored a group of middle school students on the basic concepts of C++ and Arduino.
- Helped coordinate, assist, and guide middle school students on various group projects.
- Planned and made a mini smart-home system using an ESP-32E to control a series of components for the students to learn and recreate.
- Utilized the BLYNK IoT API to control a series of components (LEDs, MPQ Sensors, servos, etc.) on the BLYNK mobile application or website to mimic smart-home capabilities.

#### University of Nevada, Las Vegas – Undergraduate Teaching Assistant

September 2023 - Present

- Conduct tutoring and biweekly office hours for students.
- Assist students in learning data structures and algorithms.
- Grade given coursework and give feedback on code.

## **Projects**

#### **Discord Bot - Creator**

- Built using discord.py API to allow users to use a series of commands such as setting reminders for users for a specific time/day or creating a QR code for a website using the qrcode library.
- Utilizes the GPT-3 API made by OpenAI to create responses for messages that the user has sent to the bot.
- Used an infrastructure platform called Railway to deploy and host the bot.

#### Website Scrapper (using GO) - Creator

- An array of websites is created to scrape existing images and URLs where they will be put into a separate directory.
- Will count the number of sub-websites and images from the given array of websites.
- Utilizes goroutines to scrape images and URLs concurrently.

## Population Simulation (Linear Algebra Project using C++) - Creator

- A third-party library (Eigen library) was used to help find and create the existing eigenvalues and
  eigenvectors for the possible combinations to simulate population growth/decay of the prey and predator
  populations.
- A struct is utilized to create a 2D array, discriminant, eigenvalues, and eigenvectors of each 1,296 combinations.

#### **Education**

## University of Nevada, Las Vegas - B.S., Computer Science

2019-2025 (expected)

Honors & Awards: Made the Dean's List in 3 semesters: 2019 Fall Semester and 2020 Spring and Fall Semesters.

Relevant Coursework: Data Structures and Algorithms, Object-Oriented Programming

# **Skills & abilities**

- Knowledge of the Python, GO, and C++ languages.
- Familiar with Linux and BASH.
- Quick problem-solving capabilities
- Self-starter