BRANDON GARATE

PROGRAMMING PROJECTS

Spotify Mood Tracker (Python)

 Designed an Algorithm to determine the user's mood based on the user's recent listening history.

Particle Physics Simulation (C++)

- Uses mathematics to simulate particles interacting with each other.
 Online Emulated Rubiks Cube (JS, HTML, CSS)
- An Online version of a Rubiks Cube, controlled with mouse sliding mechanics.
 ChatGPT Discord Bot (Python)
- Implemented ChatGPT as a bot into personal Discord Server

Automated Signal To Make Me a Coffee (Python)

 Using an automated signal outputted from my phone, my coffee machine automatically begins to boil water

WORK HISTORY

Instructor, 08/2024 - 11/2024 Learn2CodeLive, Chula Vista, CA

- Scratch Programming: Taught students the fundamentals of programming using Scratch, a visual programming language designed to make coding accessible to beginners. Guided students through the creation of interactive stories, games, and animations.
- LEGO Robotics Spike Prime: Instructed students on the principles of robotics and engineering through hands-on activities using the LEGO Spike Prime kit. Facilitated learning in areas such as sensor integration, motor control, and basic programming to build and program functional robots.

Sensei / Computer Science Tutor, 10/2022 - Current SILICON VALLEY CODING SCHOOL LLC, San Diego, CA

- Taught programming in JavaScript, C#, and Python.
- Instructed game development using Unity and MakeCode Arcade.
- · Guided students in problem-solving and troubleshooting.
- Conducted regular code reviews with students to help them identify areas of improvement and adopt best practices within their projects.

Volunteer 3D Design Instructor, 03/2024 - 05/2024 San Diego State University, Out Reach Program, San Diego, CA

- Introduced and thoroughly explained 3D software and its uses to students.
- Increased student motivation by developing engaging lesson plans that catered to various learning styles.
- Assisted in curriculum development and ensured effective instruction.

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EDUCATION

Bachelor of Science, Computer Science, Expected in 08/2027 San Diego State University - San Diego,

PROFESSIONAL SUMMARY

Versatile Computer Science professional with expertise in Python, C++, JavaScript, and C#. Experienced in building software applications, automation tools, and web projects. Currently expanding my focus from tutoring to software development, with a strong foundation in problem-solving, algorithms, and game development.

SKILLS

- Python, C++, Java, JavaScript, React, and HTML
- Functional Programming
- Software Development
- Debugging
- · Technology Integration
- Bilingual