Jack Muir

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Education

University of California San Diego

2022-2024

B. S. Computer Science and Mathematics - GPA: 3.8

Moorpark College

2020-2022

A.S. Computer Science, Mathematics, & Physics - GPA: 4.0 with Honors

Coursework: Data Structures, Algorithms, Computer Architecture, Systems Programming, Electricity and Magnetism, Project Management, Software Tools, Python, Java, C++, Graph Theory

Organizations: Association for Computing Machinery, Themed Entertainment Association, IAAPA, Big Break Foundation

Work Experience

Themed Entertainment Association at UCSD

August 2021 - Present

Executive Producer and Animatronics Engineer

- Oversee administrative duties for UC San Diego's official Haunted Maze Attraction, including communicating project scope and budget with the university events office and organizing multi-disciplined creative and technical teams towards an efficient production process
- Manage organization of over 80 members in an attraction experienced by 1000 guests over 2 nights
- Engineered a swinging chandelier animatronic and effect queue foot switches using Arduino and C++

Moorpark College Computer Science Department

August 2021 - June 2022

Mentor

- Mentored high school and collegiate students in **JavaScript**, **C++**, **HTML**, **Java**, and **Object-Oriented** methodologies in a project-based environment
- Collaborated with fellow mentors to present Powerpoints on Github repository management with Git Bash

Walt Disney World

January 2022 - June 2022

College Program Intern

- Led fast-paced T-Shirt printing processes at ESPN World of Sports event housing over **10,000 guests** while adapting quickly to lead and improve the performance of over 10 different operations
- One of 100 selected for Tech Behind the Dreams- Walt Disney Imagineering program to learn from industry leaders in attraction development, specialized in attraction control software and animatronics programming
- Awarded "Mousters" of Leadership certification for demonstrating intelligent decision-making in multi-level management simulations for theme park operations

Selected Projects

Scavenjourney Mixed Reality App

Winter 2023

- Developed a Full-Stack web application using Node.js, Express, and MongoDB where users create and play
 mixed reality games accessible through 3D printed physical NFC tags that can be scanned by mobile devices
- Implemented language-based AI game creation through prompt engineering of the OpenAI ChatGPT API

Neural Reconstruction VR Video Game

Summer 2022

- Produced a Virtual Reality puzzle game in Unity with C# compatible with Meta Oculus and Unreal OpenXR frameworks in which players must connect colored neurons around them in order of the color spectrum
- Integrated **UberDuck AI Voice Synthesis** software to produce character voice lines for narration and instruction

Activities and Leadership

Association for Computing Machinery

Fall 2022 - Present

- Collaborated with fellow members to organize and participate in technical events and workshops, enhancing knowledge and skills in computing technologies and industry trends
- Workshops included metaverse programming in Roblox and using the OpenAI ChatGPT API in app pipelines

EDUtainment Program- Big Break Foundation

Fall 2022

 Awarded a scholarship to attend International Association of Amusement Parks and Attractions 2022 Expo to improve professional communication skills and learn about cutting edge technologies in themed entertainment

Skills

Languages: C#, Python, JavaScript, C++, Java, HTML, C, NASM Assembly

Tools/Frameworks: Unity Game Engine, OpenAl API, Arduino, Node.js, Oculus, Git, VS Code, Visual Studio