

Wesley Sum

 github.com/wesleysum  [linkedin.com/in/wesleysum](https://www.linkedin.com/in/wesleysum)  wesleysumsoftwaredev@gmail.com

EDUCATION

Virginia Tech

Bachelor Degree in Computer Science

Orange Coast College

Associates Degree in Computer Science

June 2025

Current GPA: 3.7/4.0

June 2023

GPA: 3.7/4.0

RELEVANT COURSEWORK

Courses: Data Structures and Software Design, Computer Organization , Physics Mechanics, Modern Physics, Calculus III, **Object-Oriented Programming**

Awards: President and Dean's List (at Orange Coast College), VT Hackathon 2023 (Best Hack Utilizing Real Estate Data)

SKILLS

Languages: C++, Java, Python, JavaScript/TypeScript, HTML/CSS

Tools: Git/GitHub, Jupyter, VS Code, IntelliJ, Eclipse

Frameworks: React, JUnit

PROJECTS

Gentrification Prediction Model | *HTML/CSS, Google Map API, Git, Jupyter, VS Code*

September 2023

- Developed Gentrif.ai using scikit-learn for **data analysis** and Google Maps for visualization.
- Achieved up to 90% accuracy in predicting gentrification risk for user-input zip codes using a dataset of over 4000 data points on Google Maps

Task Flow Manager | *Typescript, HTML/CSS, React, VS Code*

May 2023

- Employed **useState** for task status, **useRef** for intuitive drag-and-drop interactions, and **useReducers** for efficient state updates, ensuring a smooth user experience.
- Enabled users to effortlessly prioritize tasks through drag-and-drop, improving task organization and boosting productivity.

Personal Website Design | *JavaScript, HTML, Tailwind CSS, VS Code*

August 2022

- Designed and developed a responsive personal website using HTML, JS, and **Tailwind CSS**, leveraging pre-built classes for rapid styling.

Slot Machine | *JavaScript, Python, VS Code*

December 2022

- Built a fully-featured slot machine game with a graphical interface using OOP principles and **algorithms** for game logic.

Calculator | *JavaScript, HTML/CSS, VS Code*

June 2022

- Developed a dynamic web calculator enabling users to perform basic mathematical operations such as addition, subtraction, multiplication, division, and percentage calculations.
- Implemented smooth transitions, clear button states, and interactive hover effects, ensuring a seamless user interaction
- Enhanced UX (User Experience) by applying CSS techniques to the calculator interface. Prioritized intuitive design, ensuring a visually appealing layout, coherent color scheme, and responsive elements.

EXPERIENCE

IBM Quantum Computing | *Remote*

September 2022 - June 2023

- Completed coursework on quantum computing principles, including quantum gates, circuits, algorithms, and key protocols like QKD and Grover's.
- Programmed quantum circuits and simulations using Qiskit, optimizing qubit mappings and gate sequences to improve fidelity and reduce error.
- Analyzed complex quantum algorithms like Shor's and Grover's, evaluating real-world use cases for integer factorization and database search acceleration.
- Explored real-world use cases for quantum computing in fields like finance and cryptography.

Zengo Corporation Sdn Bhd, Malaysia | *Technology Intern*

February 2021 - August 2021

- Coordinated logistics and documentation for over 5,000 tons of gas oil cargo on board.
- Sales of more than **10,000** tons of gas oil cargo to port customers during the contract period.
- Implemented programming calculation program to automate gas oil inventory tracking, reducing manual calculation time by 52%.
- Maintained accurate daily inventory entries and documentation in the cargo management system.