William Phong

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https://github.com/williamphong

EDUCATION

CSU San Marcos   San Marcos, CA
Bachelor's of Science in Computer Science   *Summer 2024*
- **Awards:** Deans List, Cum Laude
- **Relevant Course Work:** Data Structures and Algorithms, Operating Systems, Databases, Cloud Computing, Networking, Security, Architecture, Embedded Systems, Software Engineering, Probability and Statistics, Discrete Mathematics, Linear Algebra

EXPERIENCE

Debate Coach and Judge   Aug 2019 – Present
Torrey Pines High School, Advanced Technologies Academy, Potomac Academy   *Local and National Circuit*
- Worked with students individually and in groups of 3-8
- Created curriculum modules and preparation documents for novice/jv/varsity debaters
- Coordinated with high schools, colleges, and staff for tournament logistics
- Judged tournament rounds from preliminaries to finals rounds

Math and Reading Tutor   Aug 2022 – Jan 2023
Kumon   *San Diego, CA*
- Assisted students in math and reading topics ranging from kindergartener to high school
- Focus on math (precalculus – multivaraible calculus)
- Worked with the student information database

Team Member   Aug 2021 – Jan 2022
Einstein Bros. Bagels   *San Diego, CA*
- Assisted customers with purchasing items, making various drinks and sandwiches, and handling the register
- Helped train new members with customer service and behind the bar preparation

PROJECTS

VR Earth Orbit Simulation | *C#, MATLAB, Unity, Git*   Jan 2024 – Present
- https://github.com/williamphong/CS490-VR-Orbit
- Created a visual, hands-on virtual reality demo teaching users astrology concepts
- Worked with Professors YuanYuan Li and T. S. Kostadinov to implement research from the paper, "Earth Orbit v2.1: a 3-D visualization and analysis model of Earth's orbit, Milankovitch cycles and insolation" and the MATLAB orbit simulation program
- Rewrote original MATLAB code in C# to create mathematically accurate orbit simulations
- Used object oriented programming and asynchronous calling to implement real time math simulations
- Utilized Trello and Miro boards to organize and assign work to team members
- Documented code and wrote project reports and readme files
- Created test branches on GitHub and implemented a push/pull/merge system for the team's version control

Discord Bot | *Java, Python, C (Discord API wrapper), ffmpeg, YouTube API, Git*   July 2019 – 2021
- Implemented a Discord bot into servers with 200+ users
- Utilized youtube-dl and ffmpeg to play video audio in voice channels
- Custom chat responses and bot behavior triggered through user inputs
- Hosted on a UNIX local machine with 24/7 up-time
- Used object-oriented programming and asynchronous calling to have multiple functions be callable at the same time

CSUSM Student Application | *Java, Maven, Git, MySQL*   Jan 2023 – May 2023
- https://github.com/williamphong/CSUSMStudentApp
- The purpose of this project was to simulate the software engineering procedures of a company

- Interviewed faculty administrators and students of CSUSM to determine a customer story and requirements
- Conducted agile and scrum scheduling, created SRS and project documentation
- Led the project's creative and programming design
- Utilized Java and Android Studio to develop front-end
- Implemented a system for version control through GitHub with test and main branches
- Employed a MySQL database and connector to communicate data between server and application
- Used SHA256 hashing to encrypt user data

Technical Skills

Languages: Java/Kotlin/Scala, Python, C/C++/C#, SQL, JavaScript, HTML/CSS, Fortran, Cobol, ANTLR, MIPS
Frameworks: React, Node.js, JUnit, WordPress, Material-UI
Developer Tools: Git, Amazon Web Services, Adobe Cloud Services, Google Cloud Platform, Visual Studio & Code, PyCharm, IntelliJ, Eclipse, Android Studio, Miro, Trello