

# ALEXANDER HOANG

San Jose, CA — Davis, CA

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## Education

**University of California, Davis**

**Expected: June 2024**

Bachelor of Science in Computer Science, Minor in Technology Management GPA: 3.50

**Relevant Coursework:** Algorithms, Discrete Math, Data Structures, Machine Dependent Programming, Algorithm Design and Analysis, Object Orientated Programming, Web Programming, Computer Architecture, Probability and Statistics

In Progress: Operating Systems and System Programming

## Work Experience

**Corovan**

**March 2021 – July 2021**

*Information Technology Support*

*San Jose, CA*

- Analyzed and troubleshooted over 100 company computers and electronics.
- Assembled and disassembled computers and sorted electronics.

**C-STEM Robotics**

**July 2022 – Present**

*Math and Robotics Intern*

*Davis, CA*

- Assisted in programming activities for math and robotics curriculum for C-STEM program using C and C++.
- Collaborated with team members to develop, review, and debug coding activities for their curriculum consisting of Geometry, Algebra 1 and Algebra 2.

## Projects

**Choose the Best TikTok** | *Node.js, SQLite, CSS, HTML*

**GitHub:** [private repository](#)

- Produced user interactive web application allowing 300+ people to vote for their favorite video among list of 8 personalized user uploaded videos. Utilized SQLite to display list of video names and allow video addition or removal.
- Parsed video URL to preview video uploaded and display 2 videos side-by-side to allow users to compare and vote.
- Implemented PageRank algorithm to determine most favorite video by utilizing SQLite to store user data and votes.
- Employed Node.js and Express.js API to function as the backend of the server to get/request data with JSON objects

**Local Food Truck Reviews** | *Kotlin, Android Studio*

**GitHub:** [github.com/AlexHoangs/FoodTruckReviews](https://github.com/AlexHoangs/FoodTruckReviews)

- Created user interactive android application by fetching data from local food trucks web API (food trucks at UC Davis).
- Implemented authentication with back-end server using ID tokens and Google's login API.
- Allowed authenticated users to view/post reviews about each food truck after logging into their Google account.
- Designed tab layout to switch between menu and reviews and cached data using Room database for offline use.

**Car Racer** | *Python, Pygame*

**GitHub:** [github.com/AlexHoangs/CarRacer](https://github.com/AlexHoangs/CarRacer)

- Created game that increases difficulty the higher the level, making the computer car faster.
- Generates dynamically updating GUI including; speed, time, and level
- Utilized angles and formulas to dynamically update GUI to visually see the player and computer move/turn
- Implemented feature to allow to speed up significantly but risk crashing and losing the game

**Battleship** | *C++*

**GitHub:** [github.com/AlexHoangs/BattleshipWithAIs](https://github.com/AlexHoangs/BattleshipWithAIs)

- Developed a terminal-based battleship game with multiple options on who to play against
- Incorporated option to play against another player or three different types of AI's including, hunt and destroy AI, cheating AI, or random AI by utilizing classes, inheritance, and polymorphism.
- Allocates board space and allows user to personalize ship placement on any valid coordinate on the board.
- Displays each players current board, updating each turn with both opponent's view and player's view.

## Technical Skills

**Programming Languages:** Python, C++, C, Kotlin, HTML/CSS, JavaScript, SQL/SQLite, RISC-V Assembly, SystemVerilog, LaTeX

**Developer Tools:** PyGame, Git, ReactJS, Node.js, Express.js

**Personal:** Strong Verbal and Written Communication and Interpersonal Skills, Self-Motivated, Organized, Want to Learn