ALEXANDER HOANG

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Education

University of California, Davis   **Expected: June 2024**

Bachelor of Science in Computer Science, Minor in Technology Management GPA: 3.55

Relevant Coursework: Object Orientated Programming, Web Programming, Data Structures, Discrete Math, Algorithm Design and Analysis, Probability and Statistics, Bio-Informatics, Combinatorics, Computer Architecture, Machine Dependent Programming, Computer Vision, Operating Systems

In Progress: Machine Learning, Programming Languages, HCI, Computer Networks, AI, and Computer Security

Technical Skills

Programming Languages: Python, C++, C#, C, Kotlin, HTML/CSS, JavaScript, SQL/SQLite, RISC-V Assembly, System Verilog, x86 Assembly, LaTeX, R, Perl
Developer Tools: Git, Flask, Plotly Dash, ReactJS, Node.js, Express.js, ModelSim, Quartus 2, Azure Stuid, Visul Studio
Knowledge of: Object Orientated Programming, Android Development, Full Stack Development, Web Development
Personal: Excellent in Leadership, Cross-Functional Collaboration, and Problem-Solving. Strong Communication and Interpersonal Skills, Passionate, Self-Motivated, Organized, and Adaptive Learner

Work Experience

Software Engineer Intern   **June 2023 – September 2023**
Intel Corporation   *Santa Clara, CA*

- Worked on the **Power Performance and Analytic** team and collaborated cross functionally with the **Low Power Graphics** team to **build software** to help **analyze** and **optimize GPU performance**
- **Implemented** a **dynamic dashboard** for the LPG team, **enabling seamless management, import, export**, and **visualization** of numerous **datasets** from **GPU outputs**. Achieved **300% improvement** in work **efficiency**
- **Designed** a **streamline workflow** to **optimize database queries** and **processing times**, now integrated across the entire **development platform** enabling the LPG team to **seamlessly** interact with data
- **Utilized azure studio** to **monitor** and **test database queries** before migrating code to **production server**
- **Developed** multiple **API endpoints** in **C#** to **format** and **process table schemas** of various datasets

Software Developer   **June 2023 – Present**
Homeroom   *Remote*

- **Collaboratively produced** a **educational tool** with endorsement features for teachers to **effectively** answer questions and allow students to reference, **reducing redundancy**. **Incorporated** and used in local **high schools**
- **Implemented user authentication** by **encrypting** high risk and important user data to safely store in **Firebase**
- **Utilized DynamoDB** to **store classroom data** for our user base of **40** students and teachers to reference

Lead Software Developer   **January 2023 – June 2023**
CodeLab   *Davis, CA*

- **Lead** team of developers/designers **produce** full-stack web tools to **save prospective user data** for **startup clients**
- **Designed** and **implemented** multiple **workflows** and **curated** unique outcomes for customers based on their input
- **Employed** different **frameworks/libraries** to keep prospective users attentive, **increasing user traction** by **10%**

Projects

User Thread Library | *C*   **Private Repo**

- **User-level thread library** for **linux** that provides an **interface** to **simulate multi-threading**.
- Implemented **User-Thread, Semaphore, and Preemption API's** to allow users to create, run, and **process threads concurrently** in a **round-robin** fashion while limiting the number of threads that are allowed to run **concurrently**
- Installed a **virtual timer** to **interrupt** and prevent the current thread from **starving other** threads by **yielding**

Discord Bot: Calorie Tracker | *JavaScript, SQLite, Node.js*   **github.com/AlexHoangs/DiscordCalorieTracker**

- Created a **personalized user interactive bot** to handle **commands** and keep track of user's calorie count.
- Utilized **SQLite** to store **parsed** user inputted data and keep track of what days their calorie goals were met.
- Implemented **commands** to allow user to input/view list of food/calories consumed throughout the day.

TikTok Ranker | *Node.js, SQLite, CSS, HTML*   **https://github.com/AlexHoangs/TikTok-Ranker**

- Produced **user interactive web app game** for **300+** people to play and vote for their favorite video
- Enabled users to upload **8 personalized** videos and **employed SQLite** to store videos and permit **addition/removal**
- Employed **Node.js** and **Express.js API** to function as **backend** of **server** to **get/request data** with **JSON** objects