ALEXANDER TRAN

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OBJECTIVE

Adept, creative, and fast-learning computer science student striving to improve and utilize software engineering skills by focusing on technical knowledge and competency.

Key Skills

- Python
- C++
- JavaScript

Significant Courses

- Artificial Intelligence
- Machine Learning
- Web Back-End
- Databases
- Algorithms
- Python
- Data Structures
- Intro to Game Design

Interests

- Unreal Engine 5
- Unity
- CAD
- Electronics

Professional Experience

VT ELECTRIC, INC. | Ontario, CA *(May 2017 - Present)*

Data Analyst

- Interpreted bid requests while identifying materials to be costed. Estimation phase would take approximately a week, working on 2-4 bids simultaneously with each bid ranging around $400k - $12M.
- Communicated amongst other contractors of interest to propose subcontracting.

Education

California State University, Fullerton *(August 2016 - December 2023)*

B.S. in Computer Science

Projects

Titan Rover - Senior Project / Titan Rover Club *(January 2023 - May 2023)*

California State University, Fullerton

- Collaborated in a 14-person software development team to program a Mars-type rover, following the **Agile Unified Process** and meeting deadlines, while communicating updates and concerns during weekly meetings.
- Responsible for automating our rover towards an ***OpenCV*** detected ARUCO goal position relative to its stereoscopic camera's visual odometry.
- Wrote, negotiated, and verified acceptance criteria following technical requirements with controls autonomous lead posted on a ***GitHub*** Kanban Board.
- ***Dockerized*** packages to perform Python3 tasks on Ubuntu 18.
- Created Various UML diagrams to highlight use-cases and system design.
- Engineering & Computer Science student project innovation expo finalist.

Tesla Discord Bot - Personal Project *(June 2022 - August 2022)*

Discord Community

- Collaborated on a **Python**-coded Discord bot that allows users to gain real-time feedback and command a Tesla automobile using the Tesla API.
- In charge of designing, creating, and testing commands for the bot to understand and provide corresponding embedded responses and functionality to user.

Infinite Precision Calculator - Software Design *(April 2023 - May 2023)*

California State University, Fullerton

- Programmed a calculator in python utilizing efficient algorithms and ***object-oriented programming*** practices allowing an extreme number of digits, providing precise arithmetic.
- ***Unit tested*** and verified accuracy of math while maintaining various software engineering practices in Visual Studio.

Titan Online API – Web Back-End Engineering *(August 2023 - October 2023)*

California State University, Fullerton

- Worked in a team to deliver a campus-themed API using technologies such as **Postman**, **LiteFS**, **KrakenD**, **Foreman**, **FastAPI**.
- Designed and coded the implementation of RESTful endpoints integrating multiple authorization and authentication checks while following the principle of loose coupling.

Ticking Keyboard – Personal Project *(June 2023 – July 2023)*

QMK

- Built a keyboard from scratch by laser cutting a case and plate, meticulously hand wiring and soldering switches, and flashing a RP2040 PCB with custom written firmware.
- Added a solenoid in the keyboard and firmware to further enhance user experience with audible tick on every keypress.
- Compiled code using **QMK MYSYS**