Aidan Kaneshiro

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Education

Northeastern University, Boston, MA **May 2025**
Bachelor's of Science in Computer Engineering **GPA:** 3.91
Minors: Math, Computer Science
Honors: Dean of Engineering Merit Scholarship, Dean's List
Activities: Engineering Mentor, Teaching Assistant, Pi Delta Psi

Palos Verdes Peninsula High School, Rolling Hills Estates, CA **June 2021**
Honors: AP Scholar with Distinction, California Scholarship Federation – Gold Seal bearer **GPA:** 4.84
Activities*:* Mu Alpha Theta, Technology Student Association, Varsity Volleyball Captain

Technical Skills

Technical Skills: TypeScript, JavaScript, Python, C++, HTML, TailwindCSS, SQL, MariaDB
Frameworks: React, Express, Electron, Node, REST API, WebSockets, FastAI, FPGA, Quartus, Postman, Git

Personal Projects

Algorithmic Trading Bot May 2023 - Present

- Developed an algorithmic trading bot using **Python**, **pandas**, and **Alpaca API** to implement a down-gap trading strategy, based on insights derived from backtesting a mean reversion and momentum strategy
- Leveraged intraday data to scan over **2500 stocks** for stocks that gapped down at least 2% below the prior day's low, and executed sell or buy trades on these stocks to capitalize on the identified market behavior.
- Employing **Natural Language Processing** via **Hugging Face Transformers** for classifying historical news data, predicting trading signals, and analyzing its impact on historically correlated equities.

Deep Learning for Parasitized Malaria Cell Detection March 2023 - June 2023

- Detected Infected Malaria Cells with **98% accuracy** by applying a fine tuning a **Convolutional Neural Network** on over **27,000 images** of Parasitized and Uninfected cells using **FastAi** and **Pytorch.**
- Implemented **Gradient-weighted Class Activation Mapping** to visualize and interpret the model's predictions, providing insights into the regions contributing to the classification decisions.
- Enhanced model performance and honed machine learning expertise through the diligent application of advanced **data preprocessing**, **augmentation strategies**, and **gradient descent** methodologies.

Work Experience

Leidos Bethesda, MD
System Engineering Co-op January 2023 – Present

- Conceived and assembled a dynamic desktop application and backend server using **Electron**, **JavaScript**, and **MariaDB (SQL)**, facilitating control of audio devices via **WebSockets and AES70 Protocol**
- Developed a full-stack web applications to manage the audio distribution network of submarine training systems, facilitating configuration for network protocols, database modification, and control over an array of audio devices using **Javascript**, **MariaDB**, **React**, **Express** for **RESTful APIs**, and **TailwindCSS**
- Worked in partnership with the team leader to architect an automated relational database model in **MariaDB** and **SQL** that streamlines configuration processes for submarine training systems.
- Decreased database latency by **84%** by identifying bottlenecks and multiprocessing queries using **Python**

Northeastern First Year Engineering Center Boston, MA
Red Vest(Teaching Assistant) and Mentor September 2022 – December 2022

- Improved first-year engineering students' understanding of **C++, MatLab, AutoCAD**, and **SolidWorks**
- Advised four groups of five freshman engineering students in designing and completing their final projects by mentoring groups through the engineer design process and providing feedback on technical concerns