Aidan Kaneshiro

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Education

Northeastern University, Boston, MA May 2025
Bachelor of Science in Computer Engineering, Minors in CS and Math *GPA: 3.93*
Relevant Coursework *Machine Learning, Pattern Recognition, Algorithms, Statistics, Computer Architecture, Networks, Probability, Linear Algebra, Differential Equations, Multivariable Calculus*
Honors *Dean of Engineering Merit Scholarship, Dean's List, Eta Kappa Nu, Tau Beta Pi*

Experience

Quantitative Finance Summer Analyst June 2024 – Aug. 2024
Morgan Stanley *New York, NY*
- Developed a **Full-Stack Framework** enabling quants to visualize and analyze real-time time-series charts and tables from any database table, utilizing **React**, **TypeScript**, and **q/kdb+**
- Designed an interpreter algorithm that allows users to generate applications directly from a configuration file
- Embedded automated reporting features into a bond recommendation engine using **Python**, enhancing stakeholder insight into the model's effectiveness

Fixed-Income Strategist Co-op Jan. 2024 – June 2024
UBS *New York, NY*
- Designed a **Python-based concurrent Web Crawling Algorithm**, implementing **DFS** and **backtracking** to efficiently extract portfolio information from dynamic websites, **automating 8 hours of work** a week
- Implemented **Vector Autoregressive** and **Multiple Regression Models** to forecast Yield Curves and calculate rolling beta in Emerging Market countries
- Created a portfolio optimization algorithm to calculate bond counts and automatically adjust SMA weights

High Performance Computing Research Assistant Sep. 2023 – Dec. 2023
Goodwill Computing Laboratory *Boston, MA*
- Leveraged Cloud Computing, **AWS EC2** and **Python**, to benchmark and quantify resource consumption and carbon emissions of Large Language Models and High Performance Computing Systems
- Collaborated with a PhD student to refine an Energy Consumption and Carbon Footprint Model for GPUs

System Engineering Co-op Jan. 2023 — Dec. 2023
Leidos *Bethesda, MD*
- Developed a **Full-Stack Web Application** to manage the audio distribution of submarine training systems using **JavaScript, MariaDB, React, Express** for **RESTful APIs**, and **TailwindCSS**
- Conceived and assembled a **Desktop Application** and **WebSocket server** using **Electron**, **JavaScript**, and **MariaDB (SQL)**, facilitating control of audio devices via **WebSocket** messaging and AES70 Protocol
- Executed automation processes using Bash Scripts and systemd services, streamlining RPM package installations across six thin-clients on boot

Projects

Algorithmic Gap Trading | *Python* May 2023 – Jul. 2023
- 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

Deep Learning for Parasitized Malaria Cell Detection | *Python* Mar. 2023 – Jun. 2023
- Detected infected Malaria Cells with **98%** accuracy by 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 the model's predictions, providing insights into the regions contributing to the classification decisions

Technical Skills

Languages: Python, TypeScript, JavaScript, C++, SQL (Postgres, MariaDB), HTML/CSS, Bash, q/kdb+
Frameworks + Libraries: React, Node.js, Express.js, WebSockets, AWS, REST API, pandas, NumPy