Eli Vlahos

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Projects

Email Campaign Feature - Python, Vue.js

- Made **email blast web application** that allowed tournament organizers to send emails to contacts; contacts were imported through an administrative page or csv file and could be appropriately edited
- Emails were customized and sent to customers, their status was updated in real time using **Mailgun API** and **webhooks** for optimized reporting; developed all levels of the **stack** for the handling of contacts, groups, emails

Quadoodle – React (MLH Same Home Different Hacks 2020 Honorable Mention)

- Created a free **online multiplayer** touchpad drawing game with a team within a constrained time period
- Used **React** and **Bootstrap** to create a detailed UI for a rewarding user experience
- Made an **HTML Canvas** drawing board with live updates using **Firebase Firestore** to promote a dynamic and cooperative gaming system

Adjusted Cost Base Project – C++

- Demonstrated a foundational understanding of **linked lists and classes** by organizing stock transaction data and then calculating capital gains/losses and adjusted cost base for a private equity account's fiscal year end

RC4 Cryptography Implementation – C++

- Displayed a thorough understanding of logical operations in **C++ and base85 encoding** in order to recreate the **RC4** encryption scheme, gained a basic understanding in **cryptography, internet security and privacy**
- Implemented user input and output for encrypted messages using string and array manipulation

Database Projects (Machine Learning) – Python

- Demonstrated knowledge of **data science** and **Python** by using **pandas, numpy** and other **libraries** to organize and display critical data for company operations; corporate accounting information for tax purposes, technical indicators for security analysis and marketing data for advertising efficiency
- Cleaned and analyzed data using **pandas** by sorting values based on boolean equations, pandas functions and apply lambda tool. Chose **machine learning** model based off nature of data: **linear regression** for housing and security predictions, **logistic regression** for platform usage and **K nearest neighbor** to predict a target class

Stock Portfolio – Fundamental Indicators:

- Learned **fundamental analysis** by investing in a diversified portfolio of ETFs, bonds (corporate and government) and individual stocks in blue chip companies based on P/E, current ratio, and other financial indicators

Presented a research paper concerning the rate of changes of rockets breaking out of the atmosphere, used **Python** (**Matplotlib, Numpy**) to plot the data and **LaTex** to present the paper