Ryan Jung

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EDUCATION

Boston College, Morrissey College of Arts and Sciences — **Chestnut Hill, Massachusetts**

BS in Computer Science and BA in Economics — Expected May 2023

- GPA: 3.7 / 4.0
- Relevant Coursework: Logic and Computation, Randomness and Computation, Computer Systems, Computer Organization and Lab, Algorithms, Robotics, Computer Vision, Natural Language Processing, Object-Oriented Design

INTERNSHIPS

Uber — **San Francisco, California**

Software Engineering Intern — May 2022 – August 2022

- Enhanced Uber's internal service OAuth Provider, which returns ~650,000 errors/day to third party developers, by improving error output. **(Go, JavaScript)**
- Implemented and tested 80+ error descriptions that supplement existing error codes to aid these developers in troubleshooting issues with their requests, improving coverage to 100% of all errors returned. **(Go)**
- Led the efforts behind refining the new OAuth Authorization Page by parsing and validating URL parameters received from back-end to front-end. **(TypeScript, GraphQL)**

Data Axle — **Remote**

Software Engineer Intern — June 2021 – August 2021

- Upgraded Genie's search functionality by training spaCy (Natural Language Processing) models to recognize entities like name, age, gender, address in over 38,000 search queries daily. **(Python)**
- Restructured monitoring of 20+ websites/logins by writing Terraform scripts for Checkly API to ensure 24/7 uptime.
- Improved code security by incorporating HashiCorp Vault into GitHub repositories to pull 100+ sensitive secrets from Vault rather than storing inside GitHub itself.

PROGRAMMING PROJECTS — https://github.com/ryanjung1211

Sentiment-Based Stock Price Predictor | *Python* — **December 2022**

- Built and trained a Multilayer Perceptron (MLP) model based on sentiment of 10,000 Reddit posts from 2018-22.
- Predicted next-day stock price movement of mentioned tech stocks from the posts to the nearest percentage.
- Recorded accuracies of ~70% across the 4 sentiment analyzers and classifiers used in MLP model.

Hedge Fund Manager Simulator | *Java, Swing* — **November 2022**

- Developed a Swing interface to allow users to buy/sell stocks, while viewing account/stock information.
- Coded Java backend to handle storing each player's account information along with facilitating stock trades.
- Play-tested by 100+ students/staff to patch bugs and design flaws, receiving 4.9/5.0 rating from users.

Facial Photoshop Detection AI | *Python, PyTorch* — **October 2022**

- Trained MVSS-Net and FAL detector models that were able to detect facial warping and masking via Photoshop.
- Led the creation of model's dataset by utilizing Photoshop to generate over 800 faces with warping and masking.
- Reported 80~88% accuracy for model (post fine-tuning) on classifying whether or not a face was Photoshopped.

Chess Engine AI | *Python* — **August 2021**

- Generated a functional chess board and pieces with additional features like move animation and highlighting.
- Coded a chess engine able to look up to 4 moves ahead performing at ~1600 Elo rating level strength.

CODING LANGUAGES

- **Proficient in**: Python, Java, Go
- **Familiar with:** TypeScript, JavaScript, GraphQL, C, C++