

JOHNSON YANG

johnsonyangwork@gmail.com | Brooklyn, NY | github.com/johnsony0

EDUCATION

Boston University, College of Engineering

Boston, MA

B.S, Computer Engineering - Concentration in Machine Learning

May 2024

Dean's List, Cum Laude

Relevant Coursework: Software Engineering, Algorithms & Data Structures, Probability/Statistics, Machine Learning, Operating Systems, Deep Learning, Reinforcement Learning, Cloud Computing, Computer Networking

PROJECTS

Political Bias Detection - Python, Postgresql, React

Aug 2024 - Sep 2024

- Built a full-stack NLP application that detects whether a given text is politically leaning
- Gathered data through a Selenium scraping script on Facebook
- Experimented with a variety of encoding techniques (Doc2Vec, custom tokenizer, pretrained tokenizer) and models (NN, LSTM, fine-tuned pre-trained transformers), to achieve a ~90% validation accuracy
- Designed a React-based frontend for interactive user engagement with the model

League of Legends Draft Predictor - Python, Postgresql, React

July 2024

- Developed a PostgreSQL database using the Riot API to gather and store game data
- Implemented bag-of-words encoding and built predictive models using PyTorch and scikit-learn
- Created a responsive React frontend, allowing users to select champions and view predicted outcomes

Stock Predictor - Python

June 2024

- Engineered a ML model with PyTorch to forecast stock prices and trends with high accuracy.
- Leveraged NumPy and pandas for efficient data processing and Matplotlib for insightful data visualizations
- Utilized seven years of historical stock data via the Alpaca API for comprehensive model training and testing
- Achieved predictions within 5% accuracy of the actual stock values

EXPERIENCE

Boston University Mentorship

Boston, MA

Software Engineer

Sep 2023 - Dec 2023

- Analyzed historical data on vulnerabilities identified within hundreds of Kubernetes SBOMs, accessible through a CLI or bar graph visualizations
- Consolidated thousands of vulnerability data into a Neo4J database for enhanced analysis and tracking
- Directed development of a CLI tool to access data in depth

Boston University Engineering Department

Boston, MA

Lab Assistant

Oct 2022 - May 2023

- Monitored over a hundred lab computers, ensuring software is up to date, and guaranteeing functionality and efficiency for hundreds of students to use in a college environment
- Functioned in a team of 4 to catalog, sort, and deploy over 200 devices (e.g.: oscilloscopes, waveform generators, multimeters, monitors, computers, etc.) for college courses
- Performed maintenance on both Windows and Linux OS computers used by over a dozen classes

SKILLS

Programming: C/C++, Matlab, Verilog, Python, JavaScript

Other Tools & Frameworks: Git, Linux/Unix, PyTorch, NumPy, React, Firebase, MongoDB, FastAPI, Neo4J,

Languages: Chinese (intermediate)