

JOHNSON YANG

johnsony@bu.edu | 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

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 champion encoding and built predictive models using PyTorch and scikit-learn.
- Created a responsive React frontend, allowing users to select champions and receive game outcome predictions.

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 robust 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

PySuperTuxKart AI Driving - Python

Nov 2023 - Dec 2023

- Engineered an AI-powered virtual go-kart outperforming humans on most simulated maps, built with PyTorch
- Trained the AI by feeding tens of thousands of image data into a convolutional neural network
- Supervised development, training, and testing of convolutional model, accomplished decreasing loss rate by 72%, from 0.071 to 0.02

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, including names, installed and fixed versions, CVE codes, and severity levels, 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)