JOHNSON YANG

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LinkedIn | GitHub | Website

EDUCATION

New York University, Tandon School of Engineering Brooklyn, NY
M.S, Computer Engineering Expected Graduation Date – Dec 2026

Boston University, College of Engineering Boston, MA
B.S, Computer Engineering - Concentration in Machine Learning May 2024
GPA: 3.67 - 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

Productivity Extension - React, Google Extensions, Python, PyTorch , SQL Oct 2024 - Present

- Developing a chrome extension enabling better productivity and usability of social media sites through removing functionality and distractions such as reactions, comments, shortcuts, images, and more
    - Implemented a range of customization options, including limiting scroll distance, daily view cap, political filtering, hide specific UI elements (e.g. home, video, contacts), disabling messages, and enforcing platform timeouts
    - Designed an intuitive webpage utilizing React for seamless configuration of settings
    - Ensured compatibility with major social media platforms (e.g. Twitter, Facebook, and Instagram) with plans to expand into video platforms as well (e.g. Twitch and Youtube)
- Engineered a lightweight deep learning model that analyzes a text for political bias, and integrated the model into the extension to automatically hide posts with a bias greater than the threshold set by the user
    - Scraped Facebook pages of reputable sources (e.g. NYT, Fox, BBC) to collect thousands of labeled text, storing the training data within a PostgreSQL database
    - Created NLP models exploiting PyTorch and Nvidia CUDA achieving ~90% accuracy in detection through experimentation with various encoding methods (custom tokenizer, pretrained tokenizer, doc2vec) and deep learning architectures (LSTM, Fine-tuning BERT, basic neural network)

Game Outcome Predictor - Python, Postgresql, React July 2024

- Developed a machine learning model to predict the outcome of games based on factors such as game version or characters selected
- Built a PostgreSQL database using the Riot API to collect and manage extensive game data
- Implemented bag-of-words encoding and created an ensemble predictive model using PyTorch and scikit-learn
- Produced a responsive React frontend, allowing users to configure inputs and interact with the model

EXPERIENCE

Boston University Mentorship Sep 2023 - Dec 2023
Software Engineer Boston, MA

- Analyzed historical data on vulnerabilities identified within hundreds of Kubernetes SBOMs, with compiled and analyzed data 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 further analysis
- Directed development of a CLI tool to access data in depth

SKILLS

Programming: C/C++, Matlab, Verilog, Python, JavaScript
Other Tools & Frameworks: Logic Design, Git, Linux/Unix, FPGA programming, PyTorch, React, Firebase, MongoDB, FastAPI, Neo4J
Languages: Chinese (intermediate)