JOHNSON YANG

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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

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

Evolution of Kubernetes - Python, Neo4J   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

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 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)