Joshua Hizgiaev

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Education

Stevens Institute of Technology Hoboken, NJ
Bachelor of Science in Computer Science *Expected May 2026*
Scholarships & Awards: Edwin A. Stevens Scholarship, Dean's List: Fall 2022, Spring 2023 *GPA: 3.9/4.0*
Relevant Coursework Data-Structures, Discrete Mathematics, Linear Algebra, Probability and Statistics, Computer Architecture, Algorithms, Multivariable Calculus, Vectors and Matrices

Technical Skills

Languages: Java, Python, C/C++, JavaScript, HTML/CSS, Latex, Scheme/Racket
Frameworks: Node.js, Flask, JUnit, Vite.js, Plotly Dash, Django
Libraries: pandas, NumPy, Matplotlib, Scipy, PyTorch, Yahoo Finance API, Plotly, Seaborn, NLTK, HuggingFace
Operating Systems: Microsoft Windows, UNIX, MacOS, Ubuntu Linux, Fedora Linux

Experience

Undergraduate Research Intern June 2023 – August 2023
Stevens Institute of Technology *Hoboken, NJ*
- Perform data analysis on 5 terabytes of U.S. economic and employment data using Python scientific libraries: Pandas, SciPy, NumPy, and Matplotlib.
- Produce a Cumulative Frequency and Comparison Analysis on LightCast U.S. employment database to analyze the growth of Data Science skills
- Create a BiDirectional Recurrent Neural Network with PyTorch for a multiclass text classification model to take as input U.S. job advertisements and output the desired skill and industry of a job.

Undergraduate Research Assistant April 2023 – August 2023
Stevens Institute of Technology *Hoboken, NJ*
- Perform static site generation performance testing using Sphinx and Hugo static site generation.
- Create custom RestructuredText directives using JavaScript and server scripts with Python and JavaScript
- Contributed 20K+ lines of code to an established codebase via Git
- Implement a full textbook static site using Sphinx documentation generation as proof-of-concept

Projects

SGB-Courses | *Python, Sphinx, Web-Assembly, Pyodide, HTML/CSS, JavaScript* June 2023 – August 2023
- Developed a client-side Text-Book site with Sphinx statically serving Python code challenge IDE, Quiz Generator, and Python REPL web applications used by graduate Introduction to Computer Science students
- Utilize **Web-Assembly, JavaScript**, and **HTML/CSS** to implement a Python IDE to run statically served test scripts similar to that of LeetCode for coding challenges
- Deployed to production, is used by **50+** graduate students at Stevens Institute of Technology

StockoBot | *Python, Discord.py, Matplotlib, Pandas, Financial Statistics, Plotly* May 2023 – Present
- Developed a Real-Time Financial Statistics and Quantitative Analysis Discord bot in **Python** and **Pycord**
- Published Discord bot on GitHub and used in servers with over **700+** users
- Implemented **Real-Time stock tickers** for all avaliable tickers on Yahoo Finance featuring Open, Close, Volume, High, Low, and percent change
- Utilized **Matplotlib** and **Plotly** so users can query plots for stock performance, historical volatility, MACD, Sharpe-Ratio, and Sortino Ratio

StockoDash | *Python, Django, Portfolio Analysis, PyTorch, Plotly Dash, Plotly* July 2023 – Present
- Developed a **Django/Plotly Dash** web application to provide users a full **quantitative analysis** of their financial portfolio
- Utilized **HTML, JavaScript,** and **Python** to provide users complete overview of portfolio performance including **ETF Analysis, Asset Allocation, Portfolio Gross**, Portfolio Net, and Benchmark
- Provide users sample **Portfolio Optimization** using **PyTorch** and provide Stock Forecasting using PyTorch in time series
- Utilize Python Plotly and Plotly Dash to provide users an overview of their portfolio composition including Sharpe Ratio