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: 3.92/4.0*
Relevant Coursework Data-Structures, Discrete Mathematics, Systems Programming, Probability and Statistics, Computer Architecture, Algorithms, Multivariable Calculus, Vectors and Matrices, Operating Systems, Numerical Linear Algebra

TECHNICAL SKILLS

Programming: Java, Python, C/C++, JavaScript, HTML/CSS, Scheme/Racket, PostGreSQL, Git, ARM64 Assembly, OCaml
Technologies: Node.js, Flask, JUnit, Vite.js, Plotly Dash, Django, NGINX, Docker, Heroku, Jupyter Notebook
Libraries: Pandas, NumPy, Matplotlib, Scipy, PyTorch, Yahoo Finance API, Plotly, Seaborn, NLTK, HuggingFace, OpenAI API
IT: Microsoft Windows, UNIX, MacOS, Ubuntu Linux, Fedora Linux, Arch Linux, Google Cloud Suite

EXPERIENCE

Incoming Software Engineer Intern   June 2024 - August 2024
PanAgora Asset Management   *Boston, MA*

Course Assistant - Introduction to CS   September 2023 - Present
Stevens Institute of Technology   *Hoboken, NJ*
- Host **Python** labs for over **50+** undergraduate students and help students complete labs on time
- Oversee the grading of homework's and labs for over **30+** students
- Provide office hours to help students for homework's, labs, and teaching students intro computer science topics students

Undergraduate Research Intern   June 2023 – August 2023
Stevens Institute of Artificial Intelligence and Columbia University   *Hoboken, NJ*
- Perform data analysis and Data Collection with **PostGreSQL** on **5 TB** of U.S. economic and employment data using Python scientific libraries: Pandas, SciPy, NumPy, and Matplotlib.
- Produce Cumulative Frequency and Comparison Analysis on LightCast U.S. employment database to analyze the growth of **21 key Data Science skills**, including Machine Learning, NLP, Data Mining, and Data Analysis
- Named Co-Researcher for NSF research project awarded over **10 million dollars** distributed between Columbia and Stevens
- Create a **BiDirectional Recurrent Neural Network** for multiclass text classification model with average **70% accuracy** when training on **6GB** of U.S. Job advertisement data to predict job skills based on the advertisement

Undergraduate Research Assistant   April 2023 – August 2023
Stevens Institute of Technology   *Hoboken, NJ*
- Design and implement a textbook website for **100+** graduate intro to computer science students using static site generation
- Implement a client-side virtual file system in **C** and Web-Assembly Emscripten to host static Python test scripts used in code challenge testing and provide multi-file development for client-side Python IDE
- Contributed **20K+** lines of code to an established codebase via Git
- Produce client-side **Web-Assembly** tools and utilities including a Python IDE and Python REPL using **JavaScript**, HTML/CSS, and **C**

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 **100+** 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 available 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
- Applied **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
- Adopted Python Plotly and Plotly Dash to provide users an overview of their portfolio composition including Sharpe Ratio