Joshua Hizgiaev

jhizgiaev2704@gmail.com | NYC and Hoboken, NJ | +1 646 732 6568 | theautomata.net
linkedin.com/in/joshuahizgiaev | github.com/Josh-Hiz

EDUCATION Stevens Institute of Technology Hoboken, NJ

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

SKILLS

Programming: C, C++, HTML/CSS, JavaScript, Java, Python, Latex, Scheme/Racket
Data Science Tools: Pandas, SciPy, NumPy, Jupyter Notebook, Matplotlib, Plotly, Plotly Dash, Yahoo Finance, PyTorch
Linux: Ubuntu, Fedora Workstation, UNIX. Arch Linux
DevOps: Github, Git
IT: Microsoft Office Suite, macOS, Google Suite, Microsoft Windows, Git
Languages: English, Russian

EXPERIENCE

Stevens Institute of Artificial Intelligence
Undergraduate Research Intern Jun 2023 - Present

- Perform deep data analysis and cleaning on large datasets of **5 terabytes** of U.S. economic and employment data using Python scientific libraries: **Pandas**, **SciPy**, **NumPy**, and **Matplotlib**.
- Create AI-powered tools utilizing **OpenAI API** and **GPT-4** for web applications with **Python**, **Plotly Dash**, and **Jupyter**.
- Produce a **Cumulative Frequency Analysis** and **Comparison Analysis** on the LightCast U.S. Employment database to analyze the growth of Data Science skills (Machine Learning, Data Analysis, Python, etc) with Statistical T-Tests.
- 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.

Stevens Institute of Technology
Undergraduate Research Assistant Apr 2023 - Present

- Perform static site generation performance testing using **Sphinx** and **Hugo** static site generation.
- Create custom RestructuredText directives using **JavaScript** and server scripts with **Python** to statically host Sphinx apps.
- Create a full textbook static site using **Sphinx** documentation generation as proof-of-concept **HTML/CSS**
- Implemented a search tool that uses regular expressions to find relevant documents for ease of use to users.

PROJECTS

GPT4ALL | *Open AI API, Flask, GPT-4, GPT-3.5, Python, Dash*

- Python based **Plotly Dash** web application using **Flask** to host a **GPT-4 chat application.**
- Allows users to select which GPT model they can use from GPT-3, **GPT-3.5-Turbo** version to GPT-4
- **3 times faster GPT-4 response time** compared with local hosting and Google Collab environment.

Stocko Finance Bot | *Python, Discord.py, Matplotlib, Pandas, Yahoo Finance, Financial Statistics*

- Discord bot built in **Python** using **Discord.py** libraries, **Plotly, Matplotlib, Pandas, and Yahoo Finance**
- Features graphing and plotting of **stock performance** from 1970 to present, **historical volatility,** and stock **MACD.**
- **Real-time stock ticker** on stock data such as Open, Close, Volume, High, and Low
- Graphing and plotting of any appropriate ratio statistic of a stock including **Sharpe-Ratio, M2 Ratio, and Sorting Ratio**
- Display **Stock Options for Put and Call** for any given ETF of Stock available on Yahoo or Google Finance

SGB-Courses | *JavaScript, Python, HTML/CSS, Web-Assembly, Emscripten, Static-Site Generation, Sphinx*

- Designed a complete front-end Text-Book Website with Sphinx Static Site Generation for graduate level course taken by **50+ graduate students** for Introduction to Computer Science
- Use **Web Assembly**, **HTML/CSS**, and **JavaScript** to create a Pyodide-WASM code editor for students to type **Python** code in a live editor and run test scripts similar to LeetCode.
- Create **JavaScript** quiz tools to allow students to take online quizzes rendered using Markdown.

A-Star and Dijkstra's Pathfinding Algorithm Visualizer | *Java, Java AWT, GUI, Algorithms*

- Full pathfinding visualization built with **Java** with **Java Swing** and **Java AWT** graphics library.
- Accurately visualizes both the **A-Star** and **Dijkstra algorithm** in a 2D resizable grid that features a maze builder.
- Capable of plugging in other pathfinding algorithms such as **Breadth First Search** (BFS)

ACTIVITIES

Stevens Computer Science Club, Robotics Club, Stevens Linux User Group, Software Engineering Club