Charles W. Roeder

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EDUCATION

New York Institute of Technology | New York, NY　　　　　　　　　　Expected Graduation, May 2024

Bachelor of Science in Computer Science, Minor in Mathematics

- GPA: 3.98
- Presidential Honor List: Fall 2021, Spring 2022, Fall 2022, Spring 2023, Fall 2024
- Relevant Coursework: Software Engineering, Artificial Intelligence, Data Structures, Database Systems, Algorithms, Web Multimedia Development, Numerical Linear Algebra
- Red Hat SysAdmin Program: pursuing RHCSA certification via a partnership program with Red Hat

PROJECTS

SonaSense | sona-sense.vercel.app

- Engineered "SonaSense," a music streaming website using Next.js, React, TypeScript, and Tailwind CSS, providing a seamless user experience for music exploration and playlist management.
- Implemented Supabase for user authentication and data storage, backed by a PostgreSQL database, ensuring reliable and secure user interactions.
- Developed a unique music analysis backend in Python, integrated with an API using AWS Lambda and API Gateway, enabling real-time key and BPM determination of uploaded songs for enhanced search and discovery features.
- Featured a sophisticated search functionality allowing users to filter songs based on key and BPM, enhancing the music discovery experience.

AgendaMaster | agenda-master-psi.vercel.app

- Developed "Agenda Master," a comprehensive task management and college application planning tool built with Next.js, React, TypeScript and Tailwind CSS.
- Leveraged MongoDB for efficient data and account storage, providing robust and scalable database management.
- Integrated the ChatGPT API to enable automatic generation and management of college application tasks for high school seniors, featuring an interactive timeline for efficient tracking and deadline visualization.
- Utilized NextAuth with bcrypt for user authentication and middleware, ensuring secure access and data protection.

Stock Market Predictor

- Developed a stock market predictor using sentiment analysis of Reddit comments and historical yfinance stock data to make buy, sell, or hold decisions.
- Utilized pandas for efficient data manipulation and preprocessing, ensuring accurate input for prediction model.
- Applied a Naive Bayes machine learning model for statistical predictive analysis.

WORK EXPERIENCE

FOUND Study　　　　　　　　　　　　　　　　　　　　　　　　　　　New York, NY

Resident Assistant　　　　　　　　　　　　　　　　　　　　　　*August 2023 - Present*

- Provide guidance and supervision to over 1000 residents via mediating interpersonal conflicts, aiding in maintenance troubleshooting by directing to the appropriate resources, and fostering community engagement through the organization of residence life events.
- Assist with the maintenance of building operations for the 525 Lexington Ave property by collaborating with building managers and community managers

Butterfield Market　　　　　　　　　　　　　　　　　　　　　　　　New York, NY

Team Member – Grocery & Prepared Foods　　　　　　　　　　*October 2022 - Present*

- Utilize strong communication and interpersonal skills to collaborate with team members and provide exceptional service, resulting in high levels of customer retention and loyalty.
- Demonstrate ability to work effectively in a fast-paced environment and handle multiple tasks simultaneously.
- Boost team efficiency and productivity by proactively identifying opportunities to improve processes and procedures.

SKILLS

Programming: JavaScript, Python, Java, TypeScript, HTML, CSS, SQL, MatLab

Tools: React, Next.js, MongoDB, Supabase, TailwindCSS, React Native, Expo, Pandas, Scikit-learn, Seaborn, Git, GitHub, Webpack, SSH, ESLint, VSCode, MySQL

Platforms: Linux (Arch, Red Hat, Ubuntu), Windows 10/11