

John Hileman

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EDUCATION

Northwestern University

Expected 2026

B.S. in Computer Science and Mathematics

Evanston, IL

- 3.75/4.00 GPA; Activities: NU Fintech, Kappa Theta Pi, The Garage Entrepreneurship Center, NU Blockchain
- Relevant Coursework: Algorithm Design & Analysis, Operating Systems, Computer Networking, Machine Learning, Computer Systems, Scalable Software Architecture (AWS), Data Structures & Algorithms, Stochastic Processes

PROFESSIONAL EXPERIENCE

IMC Trading

June 2025 – August 2025

Incoming Software Engineer Intern

Chicago, IL

Capital One

June 2024 – August 2024

Software Engineer Intern

Dallas, TX

- Developed enterprise event processing reactive API platform in Java to process 65 million weekly real-time events.
- Crafted and designed a self-service application for dozens of developers to utilize the event gateway microservice.
- Engineered and implemented architecture for Go backend platform to deliver status updates on enterprise events.
- Spearheaded a reactive user interface with Angular to visualize real-time updates and ensure termination of asynchronous threads for a failsafe execution strategy to cancel the processing of thousands of failed events.

Split Rideshare

June 2023 – June 2024

Software Engineer Intern

Evanston, IL

- Integrated Uber ride-sharing API for airport travel matchmaking service used by 1 in 8 Northwestern students.
- Orchestrated robust back-end Python solutions leveraging Firebase API calls for efficient data collection, storage, and management, successfully handling thousands of documents of entries with scalability and reliability.
- Formulated and deployed a greedy matchmaking algorithm resulting in a more than 99% decrease in run-time.

UBS

August 2023 – December 2023

Software Engineer Intern

Chicago, IL

- Innovated and tested Visual Basic Macros to eliminate repetitive processes, saving 15 employees 30 minutes daily.
- Applied Excel and Outlook scripts to automate the reporting and marketing process of 400+ corporate clients.

Northwestern University

September 2024 – December 2024

Teaching Assistant

Evanston, IL

- Undergraduate Teaching Assistant for CS 336 - Design & Analysis of Algorithms (Fall 2024), CS 343 - Operating Systems (Winter 2025), and CS 213 - Introduction to Computer Systems (Spring 2025).

PROJECTS

Northwestern Financial Technologies Trading Competition | C++, Grafana, Websockets, React JS

- Collaborated with 10 developers to develop the exchange for Northwestern Trading Competition using C++.
- Generated visualizations with Grafana and websockets for low-latency profit & loss tracking and capital analysis.

Real-Time Cryptocurrency Order Book Visualizer | C++, Boost, Websockets, Coinbase API

- Built real-time order book visualizer for cryptocurrencies, using Coinbase WebSocket API for Bitcoin data.
- Employed Boost Beast websockets in C++ to efficiently handle and visualize high-frequency trading data, providing users with intuitive insights and graphical representations of real-time order book dynamics.

Digital Town Hall Social Network | Go, AWS, Firebase, Google Maps API, JavaScript, Next.JS, Tailwind

- Created social network platform for digitizing town hall meetings and democratizing infrastructure improvement.
- Leveraged AWS and Firebase to implement Go API for user management, data storage, and real-time updates.

Real-Time Translation Chat App | Go, Websockets, AWS Translate, Docker, AWS RDS, React JS

- Constructed a real-time chat application using Go with automatic message translation and profanity filtration.
- Utilized AWS Translate and Websockets for messaging, ensuring seamless communication across languages.

TECHNICAL SKILLS

Languages: Python, C++, C, Go, Java, SQL, JavaScript, Bash, R, HTML, CSS, VBA, LaTeX, MATLAB

Technologies: NumPy, Pandas, Make, APIs, UNIX, Matplotlib, React, Concurrency, Cloud Infrastructure

Developer Tools: Git, GitHub, SSH, AWS, Firebase, VS Code, GDB, Valgrind, RStudio, Microsoft Excel