

Ava Hajratwala

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SUMMARY

Recent Columbia graduate and proven leader passionate about learning new tech stacks and leveraging AI technologies to solve complex challenges. Seeking software engineering and project management opportunities to drive innovation and enhance user experiences.

EDUCATION

Barnard College, Columbia University

Bachelor of Arts in Computer Science

Selected courses: Design for Generative AI, Entrepreneurship, NLP

New York, NY

Sept. 2021 – Dec. 2024

GPA: 3.8/4.0

SKILLS

Languages: Python, JavaScript/TypeScript, C, C++, SQL (MySQL, PostgreSQL), Java, HTML, CSS, Haskell

Frameworks: React, Express.js, Flask, FastAPI, JUnit

Developer Tools: Git, Docker, Supabase/Firebase, Vercel, GitHub Actions, Postman, IntelliJ

Libraries: jQuery, Bootstrap, NumPy, OpenCV, pandas, Matplotlib, WebAudio

EXPERIENCE

Full-stack Developer

Sept. 2024 – Feb. 2025

WBAR Radio

New York, NY

- Designed and deployed a scalable REST API using FastAPI, enabling real-time, authenticated access to radio show schedules, archives, and DJ information for over 500 users.
- Designed a relational database, replacing hardcoded data and streamlining data management, which improved scalability and eliminated manual updates.
- Designed a role-based permissions system, enhancing workflow efficiency and user autonomy by allowing DJs and executive board members to securely manage their content themselves.
- Created dynamic React components to replace static HTML, enhancing the user interface and accelerating feature development by 20%.
- Conducted 10 user interviews across the organization both to design and to gather feedback on the new system, leading to UI improvements that boosted user satisfaction.

Undergraduate AI Research Lead

May 2024 – Dec. 2024

Soros Lab, Barnard College

New York, NY

- Promoted to team lead in 3 months for strong leadership, organization, and communication skills.
- Cut approx. 10 hours per week of test runtime by parallelizing experiment trials.
- Secured a \$6,000 grant to work on a team developing novel genetic algorithms in Python.
- Mentored 3 teammates in Git and GitHub, improving team collaboration and version control practices.
- Presented findings in a poster session to more than 50 academics and industry leaders, showcasing summer work and initiating discussions on future collaboration opportunities.

PROJECTS

Privacy Policy Helper | *Python, Flask, React, Git*

Sept. 2024 – Present

- Built a full-stack web app to help users evaluate privacy tradeoffs using OpenAI's chat API.
- Conducted testing on 10 users to refine technical prototype, increasing user satisfaction by 30%.
- Built a webscraper to retrieve a privacy policy by company name and increase model accuracy.
- Processed GPT output using fuzzy search to cite sources in the model's response to increase user trust in the model's answer.

Flight Simulator | *C++, Arduino, Unity, Serial, Fusion360*

Apr. – May 2024

- Developed a custom USB-C protocol for ESP32 to control a virtual plane in the Unity game engine
- Processed analog sensor inputs in real-time to smooth plane handling and decrease crash rate
- Rendered real-time flight feedback to the ESP32 screen to warn pilots of crashes
- Designed and machined a custom protective enclosure for the electronics