Ava Hajratwala

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Summary

Recent Columbia graduate and emerging leader passionate about designing and optimizing systems to make apps more accessible for users. Experienced in full-stack development, AI research, and user-centered design. Seeking software engineering roles.

Education

Barnard College, Columbia University — New York, NY
Bachelor of Arts in Computer Science — *Sept. 2021 – Dec. 2024*
Selected courses: Design for Generative AI, Entrepreneurship, NLP — **GPA: 3.81/4.00**

Skills

Languages: Python, JavaScript/TypeScript (Node), 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, AWS
Libraries: jQuery, TailwindCSS, 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 while iterating on the frontend and backend design, leading to UX 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 Guardian | *Python, Flask, React, OpenAI API* — Sept. 2024 – Feb. 2025

- Designed and built a full-stack React app to help users evaluate jargon-filled privacy policies using generative AI.
- Tested new features on 10 users while iterating on technical prototype, increasing user satisfaction by 30%.
- Increased user trust in the model's accuracy by implementing a feature that displayed citations alongside the model's claims.

Flight Simulator | *C++, Arduino, Unity, Serial, Fusion360* — Apr. – May 2024

- Developed a custom USB-C protocol for an ESP32 to control a virtual plane in the Unity game engine.
- De-noised 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.