

# Waffy Ahmed

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## Education

**Georgia Institute of Technology** | Atlanta, GA  
Bachelor of Science in Computer Science

Expected: December 2024  
Faculty Honors, Zell Miller Scholar

## Experience

### Software Engineer Intern

May 2023 – July 2023, May 2024 – July 2024

*The Home Depot*

*Atlanta, GA*

- Developed an internal product information page for cashiers, streamlining self-checkout processes and reducing customer wait times for associate interventions by ~25%.
- Leveraged Java to obtain germane product data, used React and TypeScript to effectively display product information for all registers at self-checkout, pruning customer theft by ~\$10 million annually.
- Optimized the efficiency of configuring 40,000+ registers across 2,300 stores by 90%, in collaboration with 2 interns.
- Truncated the maximum deployment time of updates to registers from 24+ hours to 30 minutes, leveraging the HttpClient and Flow Java libraries to streamline the retrieval of polymorphic external configurations.
- Collaborated with cross-functional teams, including the UI/UX team, to design and construct user interface components for a new configuration process - utilizing React, Next.js, and TypeScript.

### Frontend Engineer

September 2024 – Present

*Fintech at Georgia Tech*

*Atlanta, GA*

- Reducing page load times by ~35% via transforming a multi-page credit card website into a React-based single-page application, streamlining card wallet management and adding a card removal feature for authenticated users.

### Firmware Engineer Intern

May 2022 – August 2022

*Landis+Gyr*

*Alpharetta, GA*

- Accelerated the process of converting DCW (Data Control Words) hexadecimal values to their corresponding ASCII representations by ~50% through efficient Python practices.
- Bolstered data transmission efficiency by ~25%, collaborating with a software architect to conduct comprehensive testing of collectors and debugging of various Python scripts employing MySQL.

## Projects

### CDC Data Reconciliation | *Python, FastAPI, SQLite, React, Tailwind CSS*

- Oversaw a team of 6 to automate the reconciliation of case counts for infectious diseases between 50 state health departments and the CDC, alongside doubling as a full-stack software developer.
- Utilized Python to compare state health department and CDC data, highlighting any discrepancies between the two datasets, saving 5000+ hours of manual reconciliation annually.
- Leveraged React to visualize discrepancy statistics and disease-specific data, along with implementing an interactive discrepancy table filtering feature based on selected statistics.
- Procured feedback from CDC computer scientists and representatives from 25+ state health departments via application demonstrations and integrated suggested modifications.

### Job Search Aid | *Kotlin, Google Firebase, Cloud Firestore, Adzuna API, XML*

- Engineered an Android application to aid job seekers by providing resources such as FAQs, resume templates, etc.
- Integrated the Adzuna API using Kotlin to fetch jobs based on user preferences of job title, location, and radius.
- Employed FirebaseAuth to authenticate users via emails and passwords - incorporated Firestore to store germane user data, including saved jobs, usernames, emails, passwords, and names.

### Campus Discovery Service | *MongoDB, Node.js, Java, XML*

- Developed an Android application for students to explore and register for on-campus events at Georgia Tech, offering access to event capacities, details, and waitlists, in collaboration with 5 classmates.

## Skills

**Languages:** Java, C#, C++, C, Python, Kotlin, JavaScript, TypeScript, HTML, CSS, XML, GLSL, LaTeX

**Technologies/Frameworks:** SQLite, Firebase, Firestore, React, Node.js, Next.js, Postman, Docker, JUnit, Git, Unity

**Concepts:** Object-Oriented Programming & Design, Data Structures & Algorithms, Test-Driven Development, Backend, Frontend, Full Stack, Agile, Scrum, Data Visualization/Analysis, Human-Computer Interaction, Applied Combinatorics, SQL, NoSQL, Web/Mobile Application Development, Computer Architectures & Graphics, Video Game Design, CI/CD