Waffy Ahmed

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Education

Georgia Institute of Technology | Atlanta, GA   December 2024
Bachelor of Science in Computer Science   Faculty Honors, Dean's List, Zell Miller Scholar

Experience

Software Engineer   January 2025 – Present
The Home Depot   *Atlanta, GA*
- Automated Spinnaker deployment pipelines for 10+ microservices with cdk8s, utilizing TypeScript, Terraform, and Google Cloud Platform for production and non-production environments, reducing deployment times by 25%.
- Resolved critical transaction processing/lookup issues across 500+ stores, collaborating with cross-functional teams and leveraging Cassandra, Elasticsearch, Java, BigQuery and Postman to maintain ∼100% service availability.
- Reduced lookup latency by 5% in a high-throughput system (5.5 million lookups per day) through a scalable, bucketed Elasticsearch indexing method using Java, enabling distributed lookups via partitioned indices.
- Improved operational responsiveness by decreasing alert acknowledgement times 30% via optimizing tiered alerting and Grafana dashboards across 20+ microservices, automating escalation via Slack and PagerDuty integrations.
- Led testing and validation efforts to disable a legacy service component handling ∼27% of transaction volume (10 million daily captures/lookups) using BigQuery and Postman during a multi-team phased retirement.

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.

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.
- Procured feedback from CDC computer scientists and representatives from 25+ state health departments via application demonstrations and integrated the suggested modifications.

Job Search Aid | *Kotlin, Google Firebase, Cloud Firestore, Adzuna API, XML*
- Developed an Android application using Kotlin that fetches tailored job listings via the Adzuna API and provides job-search resources (e.g., FAQs and resume templates), helping users streamline their job search.

Skills

Languages: Java, C#, C++, C, Python, Kotlin, JavaScript, TypeScript, HTML, CSS
Technologies/Frameworks: SQLite, Cassandra, Elasticsearch, BigQuery, Google Firebase, React, React Native, Node.js, Next.js, Express, Postman, Docker, Git, JUnit, Jest, Kubernetes, GCP, Terraform, PromQL
Concepts: Object-Oriented Programming & Design, Data Structures & Algorithms, Test-Driven Development, NoSQL, SQL, Game AI, Agile, Scrum, Data Visualization/Analysis, Human-Computer Interaction, Computer Architectures
Interests: Backend, Frontend, Full-Stack, CI/CD, Web/Mobile Application Development, Distributed Systems, Cloud Computing, Automation, Monitoring & Observability, Microservices Architecture, Data Engineering