Ahmad Alsabbagh

ahmadalsabbagh.github.io

Email : ahmad.alsabbagh@alumni.utoronto.ca
LinkedIn : LinkedIn.com/in/AhmadAlsabbagh

EDUCATION

- **University of Toronto** — Toronto, ON
  Honours Bachelor of Science — *9/2017 – 4/2023*
  - Specialization: Computer Science
  - Awards: Entrance Scholarship, Dean's List candidate

EXPERIENCE

- **Coalition, Inc.** — Toronto, ON
  Software Engineer, Carriers and Accounts — *5/2024 - Present*
  - Co-led the design and development of the Organizations Service, a foundational microservice that unifies fragmented company data into consistent organizational entities. This improved risk visibility across hundreds of thousands of insurance accounts and significantly improved visibility and ability to perform data analysis caused by duplicate or incomplete records.
  - Architected and implemented a scalable, event-driven system using AWS Lambda, SQS, and Kafka to process millions of account and customer entity updates weekly. The design eliminated manual data reconciliation and ensured real-time synchronization across multiple internal systems.
  - Developed performant Go-based gRPC APIs supporting complex operations such as organization creation, merging, splitting, and relationship management. These APIs enabled reliable cross-service data integrity and faster operational issue resolution.
  - Built an intelligent fuzzy matching engine using OpenSearch, combining name, domain, and address similarity scoring with weighted algorithms to detect and group related organizations. Integrated analytics streaming through AWS Kinesis and Snowflake for continuous model evaluation and match quality tracking.
  - Integrated an AI-assisted auto-merge workflow by deploying a dedicated AWS Lambda "reviewer" that leverages Coalition's internal AI service to assess low-confidence matches. This automation reduced manual review and decision-making workload by over 90%, while increasing overall data accuracy and consistency.
  - Contributed to the company-wide migration to OpenFGA for authorization by designing scalable models for brokers, users, and accounts, unlocking support for hierarchical access control and complex permission structures.

- **Flipp Corporation** — Toronto, ON
  Software Engineer, Content Layer — *5/2023 - 5/2024*
  - Designed and launched a scalable API service on AWS EKS to deliver real-time push updates, enabling retailers to dynamically manage Flipp platform content based on in-store stock. This provided missing locality-specific data, driving a 250% increase in user engagement, with Walmart as the first onboarded retailer.
  - Led and implemented a user interface project to improve monitoring and maintainability of the content ingestion layer. Automated routine engineering tasks, preparing the system for a 100x increase in data volume while enhancing operational efficiency.
  - Analyzed and optimized Kafka infrastructure, achieving a 50x improvement in publishing efficiency for key workflows, ensuring scalability and reliability.
  - Optimized concurrent job performance in primary job scheduling service by introducing partitioned query jobs, preventing deadlocking conflicts during high-volume database operations. This enhancement significantly improved throughput and scalability for simultaneous job processing.

- **Meta Platforms, Inc.** — San Francisco Bay Area, CA
  Software Engineer Intern — *06/2022 - 08/2022*

- Engineered a scalable Hacklang–Intune pipeline to monitor policy installation metrics across Meta's Windows device fleet, enabling proactive system health tracking.
  - Resolved a Sev1 issue by delivering key insights, directly supporting high-priority incident response and decision-making.
  - Built a source-controlled pipeline for managing scripts, apps, and configurations, streamlining deployment workflows and reducing manual overhead.
  - Implemented ownership tracking in Intune, closing operational gaps and improving accountability across device management.

- **Flipp Corporation** Toronto, ON
  Software Engineer Intern *5/2021 - 4/2022*
  - Received the CEO's Choice Award for a Chrome extension built during a company-wide hackathon, enabling users to compare online products and find savings more effectively.
  - Improved product labeling accuracy using Google Product Categories, enhancing product search relevance and end-user experience.
  - Maintained and optimized data collection systems that supported $1M+ in revenue through Flipp Brand Partnership Campaigns.
  - Reduced operational alerts by 33% and improved service performance through memory optimizations in Ruby microservices.
  - Streamlined onboarding of new retailers and improved internal documentation, reducing manual dev work and accelerating campaign launches.
  - Worked across REST/GraphQL APIs and leveraged Kafka, MySQL, and Redis to ensure reliable, scalable data ingestion pipelines.

SKILLS

- **Languages**: Go (Golang), Ruby, Python, Java, JavaScript (Node.js), TypeScript, SQL, Hack (Hacklang)
- **Technologies**: AWS (Lambda, SQS, Kinesis), Kafka, Docker, Kubernetes, Git, MySQL, PostgreSQL, Redis
- **Frameworks**: Ruby on Rails, Flask, Express, Node.js, Django