A S M Taseen

github/asm-taseen | email/ataseen@uwaterloo.ca | in/a-s-m-taseen | phone/519-722-8475

EDUCATION

University of Waterloo   Sep 2020 - Apr 2025
Bachelor of Computer Science (Honours)
Coursework: Algorithms, Distributed Systems, Databases, Big Data (Spark), Operating Systems, DevOps, Networks

SKILLS

Languages: Python, TypeScript, JavaScript, Ruby, Java, Kotlin, C++, SQL
Technologies: AWS, Node, Rails, GraphQL, Django, PostgreSQL, React, Docker, Terraform, Sentry, Redis, MongoDB

EXPERIENCE

Wealthsimple   Toronto, ON
Software Engineering Intern - Cash   Sept 2024 – Dec 2024

- Optimized crypto order validation in the investment profile service by configuring caching strategy using Redis, reducing downstream API requests from ~**21k** to ~**15** daily and lowering CPU utilization by **72%**
- Worked on dynamic interest payouts to support unified multi-currency cash accounts, using Rails and GraphQL
- Created scheduler tasks with optimal parallel execution and batch processing to backfill **1.9M+** of all Wealthsimple Cash user subscription records, enabling a quick and smooth transition to dynamic interest allocations
- Created metrics-based SLO Dashboards on Datadog using Terraform to improve visibility for team-owned services

Amazon Web Services   Vancouver, BC
Software Engineering Intern - AWS Payments   May 2024 – Aug 2024

- Developed an event-driven service with AWS Athena, Lambda, SNS, and SQS to automate data discrepancy resolution, saving **+30hr/month** in operational overhead and ensuring consistent customer invoices and RFFs generation
- Fine-tuned service concurrency to minimize downstream API throttling incidents and configured DLQ redrives for reliable fallback processing, resolving data discrepancies with **97%** accuracy
- Engineered a single-trigger automation for customer onboarding using AWS SNS and Step Functions, dynamically executing business logic through workflow choices, streamlining the onboarding process

Relay   Toronto, ON
Software Engineering Intern - Risk   May 2023 – Aug 2023

- Built an automated fraud assessment and funding engine for client transactions using AWS Lambda with Node runtime, eliminating **1-3** business days of manual evaluation by risk coordinators
- Utilized Terraform to configure AWS SNS & SQS, funneling transaction risk alerts to trigger the engine in real-time
- Revamped the profile update process with email verification, spam alerts, and Redis-based rate limiting, effectively reducing profile theft by **85%** and safeguarding against API overload from excessive update attempts

Super.com   San Francisco, CA
Software Engineering Intern - Monetization   Jan 2023 – Apr 2023

- Developed 4 asynchronous Python connectors in Quart framework increasing the availability of hotel rates per month on SuperTravel by over **1 million** rates, resulting in about **12%** net revenue lift
- Extended new API endpoints within the payments microservice using Flask, PostgreSQL, Redis, and Braintree to process booking amendment fees, generating over **$10000** in revenue per month

TutorOcean   Ottawa, ON
Software Engineering Intern - B2B   Sept 2021 – Sep 2022

- Created an internal admin tool using React, Node, Express, and MongoDB that allowed one-click refunds, payments, and session booking amendments, facilitating customer support to seamlessly handle **2200+** requests per week
- Implemented a fraud detection API middleware using regex and MongoDB query pipelines to flag self-promotional activity within internal tutor-student messages, enhancing customer retention and preserving **$48000+** revenue/month

PROJECTS

Hexa - React, Redux, PostgreSQL, AWS, Node, Express, Docker

- Built an e-learning platform for exam preparation with self-hosted course content and gamified practice features
- Engineered a Dockerized Node.js API hosted on AWS EC2, integrated with a PostgreSQL database on AWS RDS
- Improved infrastructure by leveraging AWS ELB for load balancing, Amplify for CI/CD, and S3 for static course data

QuackPrep - Node, Socket.IO, Gemini, Google STT/TTS, face-api.js

- Built an AI-driven interview practice platform using Gemini for real-time feedback, error detection, and suggestions
- Integrated Google STT/TTS for communication and facial expression recognition to optimize interview performance