

Areez Visram

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Education

McMaster University

BACHELOR OF ENGINEERING IN SOFTWARE ENGINEERING CO-OP, MINOR IN INNOVATION

- 3.87/4.0 Cumulative GPA, President's Scholarship, Dean's Honour List

Hamilton ON, Canada

Sep. 2019 - April 2024

Skills

Languages: Python, JavaScript, Java, Ruby on Rails, Lua, Go, C, C++, HTML, CSS, MySQL, GraphQL, Redis, PostgreSQL

Tools: AWS, Azure, GCP, Docker, Kubernetes, Flask, Django, Git, Linux, Bash, Kafka, Jest, Minitest, PyTorch, Tensorflow

Work Experience

Rewind

Toronto, ON, Canada

SOFTWARE DEVELOPER

May 2024 - Present

- Key member of software web development team responsible for developing platform that backs up and restores billions of items for over **20000** businesses
- Developed, tested, implemented, documented and maintained high-traffic **Ruby on Rails** backend systems following a service-oriented architecture (SOA) with worker queues and background jobs
- Collaborated with frontend and design teams to create user-friendly, visually appealing **React** interfaces
- Optimized **PostgreSQL** databases, writing efficient queries and migrations to improve performance, data accuracy, and support business-critical functions
- Migrated Shopify product endpoints from REST to GraphQL by completing a mapping of **13** REST endpoints to **GraphQL** equivalents and designing and implementing a REST to GraphQL translation layer to ensure backwards compatibility
- Architected and developed a system to efficiently process Shopify GraphQL **webhooks** for real-time backups, reducing backup times by **15%**
- Researched and addressed **GraphQL** rate limiting by optimizing query concurrency and preventing throttling
- Spearheaded a project under tight deadlines to upgrade Shopify API version from 2023-10 to 2024-07, involving impact assessments, schema updates, and thorough testing to ensure uninterrupted service for high-traffic accounts
- Gained a deep understanding of cloud-based infrastructure, including **AWS**, **Docker** and **Linux** to deploy and maintain services
- Leveraged **AWS** services including **S3** for storage, **Elasticsearch** and **OpenSearch** for search and retrieval, **SQS** for message queuing, **CloudWatch** for monitoring, and **Athena** for querying large datasets
- Provided 24/7 support as on-call engineer, responding to system alarms and high-severity incidents ensuring uninterrupted operation of customer-critical systems
- Enhanced product security and compliance by identifying and fixing **13** critical vulnerabilities, while ensuring GDPR compliance through an in-depth review of data deletion processes
- Identified and resolved **3** critical production bugs, removed **800+** lines of dead code across backend services and frontend app to improve maintainability and uptime
- Delivered clear, effective communication by producing detailed technical documentation, providing feedback in GitHub code reviews, and presenting key developments to company-wide audiences
- Wrote **RSpec**, **Minitest** and **Jest** unit tests to maintain **90%** code coverage across all services

Shopify

Toronto, ON, Canada

SOFTWARE DEVELOPMENT INTERN

May 2023 - August 2023

- Implemented and optimized backend features in inventory system of high traffic **Ruby on Rails** core application
- Removed **1000+** lines of deprecated legacy code, and enhanced **GraphQL** mutations and **API** documentation
- Increased efficiency by rectifying **20000** rows of erroneous data through **MySQL** and **PostgreSQL** database queries
- Triaged production issues as on call developer, reducing incidents by **10%** and maintaining system functionality
- Achieved a **20%** reduction in bugs through **Minitest** unit and automated testing, and **GitHub** code reviews

Shopify

Toronto, ON, Canada

BACKEND DEVELOPER INTERN

May 2022 - August 2022

- Spearheaded the development of an inventory oversell protection solution in **Ruby on Rails** utilizing **MySQL** in replacement of **Redis** and load tested it with **Lua**, resulting in a reduction of stock depletion incidents by **20%**
- Optimized **MySQL** queries, resulting in **10%** performance speedup while mitigating deadlocks and timeouts
- Wrote a technical document backed by **Splunk** and **Datadog** metrics to describe and present an oversell protection solution to senior leadership that resulted in a **25%** decrease in database resource use
- Participated in architecture design meetings, collaborating with project members to improve team efficiency by **20%**

Signiant

Ottawa, ON, Canada

CO-OP SOFTWARE DEVELOPER - FULL STACK DEVELOPER

January 2021 - August 2021

- Implemented full stack features on a cloud native SaaS platform designed for fast file transfer, using **Docker** and **Kubernetes** to deploy microservices on **AWS** using S3, Step, Lambda, EC2, ECS, Athena, CloudWatch and DynamoDB
- Created robust backend features with **NodeJS** and **ExpressJS**, developing **REST API** endpoints to retrieve data from **NoSQL** databases such as **DynamoDB** and **Elasticsearch**, reducing endpoint response times by **15%**

- Leveraged **React** and **Redux** to design frontend components, decreasing page load times by **30%**
- Maintained **98%** code coverage through **Jest** and **Sinon** unit testing, addressed technical debt, and facilitated seamless microservice integration through **BitBucket** code reviews
- Delivered work in **agile** two week sprints and presented notable accomplishments during iteration demos

SalonEverywhere

Toronto, ON, Canada

DEVELOPER INTERN

May 2020 - Sep. 2020

- Contributed to the development of a web application, using **Liquid**, **HTML**, and **CSS** to design frontend interface, resulting in a **50%** increase in signups, and using **Java Spring** and **GraphQL** to implement a scalable backend system
- Developed a **JavaScript** chrome extension for cross platform image sharing, increasing content distribution by **40%**
- Used **Python**, **Tensorflow** and **PyTorch** to build a machine learning pipeline to categorize images into beauty categories with **85%** accuracy, leveraged data gathering techniques to build training set consisting of **200000** images

Projects

SocialEyes: Scaling Mobile Eye-Tracking to Multi-Person Social Settings 🔗

- Developed project involving use of **deep learning**, **computer vision** and **machine learning models** to conduct live eye-tracking and homography projection using **Python**, **C++**, **Kafka** and **React**
- With the BEATLab at McMaster University, wrote a published research paper on multi-person eye tracking for real-world scene perception in social settings, accepted to 2025 Conference on Human Factors in Computing Systems

NeatSheet: AI-Powered Crib Sheet Generator 🔗

- Developed full-stack web app using **Django**, **Next.js** and **PostgreSQL** to enable **100+** users to generate AI-powered crib sheets for university exams
- Deployed backend on **Google Cloud Run** with **Docker**, utilized **Google Cloud Tasks** for asynchronous task management, and **Google Cloud Storage** for file storage
- Built PDF parsing and Gemini-powered summarization pipeline using **Python** and **Google Cloud Functions**, enabling users to upload lecture notes and receive concise summaries
- Integrated **Stripe** for billing, **Posthog** for analytics, **CloudFlare** for CDN and security, and **DRF** for user authentication

Analysis of Goaltender Freezes on Breakouts and Scoring Chances 🔗

- Used **Python**, **Pandas**, **Matplotlib**, **Seaborn** and **data science techniques** to perform an analysis of the impact of goaltender freezes on successful breakout rate and opposition scoring chances
- Wrote a 5-page report detailing the analysis and results, and presented findings to the Utah HC analytics team
- Project placed in the top 10 of the Utah Hockey Club Summer Analytics Challenge out of 300+ submissions, chosen to conduct a live presentation on the project to the Utah HC analytics team

Toronto Maple Leafs Chrome Extension 🔗 🔗

- Released a Chrome extension built with **Go**, **JavaScript** and **HTML/CSS** for **1200+** Toronto Maple Leafs fans, providing real-time game scores, player stats, and team news within the browser

Photo Sketcher 🔗 🔗

- Used the **Canny Edge Detection Algorithm** to take uploaded images and generate hand-drawn pencil sketches
- Deployed the project as a **Docker** web app, utilizing **React** and **Flask** on **Google Cloud Platform**

Image Recognition AI 🔗

- Developed a **convolutional neural network** for image recognition, showcasing expertise in **machine learning concepts** via **Python**
- Utilized an OpenAI dataset to train the model on identifying everyday objects, demonstrating practical application of machine learning technology

Machine Learning Models 🔗

- Used **Python**, **pandas**, **numpy**, **sklearn** and **NLTK** to develop machine learning models in **Jupyter Notebooks**
- Implemented a model for named entity recognition, using the conditional random fields modelling technique to label and categorize words and phrases

In Season Stanley Cup Tracker 🔗 🔗

- Used **React** and **Firebase** to enable **150** active users to track and compete for the In Season Stanley Cup

Multi Threaded Concurrent Programs 🔗

- Developed **Jupyter Notebooks** containing multithreaded concurrent programs in **Java**, **Go**, **C** and **Python**, incorporating concurrent programming techniques such as threads, semaphores, and monitors

Leadership and Extracurricular Activities

Undergraduate Teaching Assistant (TA)

January 2024 - April 2024

- Led tutorials, graded assignments and engaged students for INNOVATE 3EX3 - Experiential Learning in Innovation

President and Community Leader - McMaster Ismaili Students Association (MISA)

July 2022 - July 2023

- Oversaw daily meetings, weekly social events, and mentored students as president of extracurricular club MISA