Vikram Chandar

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EDUCATION

McMaster University

Sept 2022 - Present

B.Eng. - Software Engineering III Co-op; Cumulative GPA: 3.9/4.0

Relevant Coursework: Data Structures and Algorithms, Digital Logic and Systems, Object-Oriented Programming

WORK EXPERIENCE

IBM Consulting | Developer Intern

May 2025 - Present

- Migrated over 2 million balance records with 99.99% accuracy into a Microsoft Azure Database by building robust Azure Synapse pipelines, streamlining legacy insurance data into the cloud environment.
- Built a parameterized **pipeline** with a **trigger** to automatically migrate postal code data from **Azure Blob Storage**, improving ingestion reliability and eliminating manual steps.
- Lowered memory usage by ~40% on high-traffic queries by eliminating redundant joins and refining query structures to improve overall system responsiveness.
- Designed and implemented **T-SQL stored procedures** to extract and aggregate real-time data on the creation status of insurance exhibits from multiple transactional tables.
- Developed **stored procedures** that dynamically returned dropdown values for frontend applications by querying normalized tables and **indexing** key fields for fast access.

BMO | Software Developer

Jan 2025 – Apr 2025

- Designed and built a **LLM-powered SQL** summarizer POC using **AWS Bedrock**, enabling non-technical users to generate **SQL** queries from natural language prompts, and view query results, reducing reliance on technical teams by **50%**.
- Implemented an **agentic workflow** with schema-aware context, allowing **LLMs** to dynamically construct and execute accurate **SQL** queries against internal **databases**, streamlining data access and improving query accuracy by **35%**.
- Enhanced and maintained **Java**-based **batch job** systems to reflect changes in client account statuses, ensuring accurate processing after bank client deactivations, improving system reliability by **10%**.
- Developed AWS Glue ETL pipelines using Boto3 SDK to automate data ingestion and transformation of structured/unstructured financial datasets for loan decisioning LLM models, improving speed by 14%.
- Configured **event-driven triggers** via **Amazon EventBridge** to initiate data pipelines upon **S3** uploads of customer credit reports, loan applications, or financial documents.
- Set up **cross-service error handling architecture** linking **Glue**, **EventBridge**, and **SNS** to maintain high availability and observability in the LLM data pipeline.

Alluri Technologies @ BMO | Jr. Full-Stack Developer

June 2023 – Aug 2023

- Implemented a **Maven-base**d testing framework to automate **Selenium testing** for the BMO InvestorLine 2.0 website, standardizing the testing process and improving reusability, saving **70+** hours.
- Managed a complex bugfix that prevented money market offerings from being displayed on margin accounts, optimizing the investing experience for over 100 000 000 registered users.
- Automated key user flows, such as account login, portfolio management, and trade execution, ensuring consistent functionality across different browsers and devices.
- Wrote reusable test scripts that simulated real-world user interactions, reducing the need for manual testing.

PROJECTS

Ocular Disease Identifier

Utilized: TensorFlow, OpenCV, React, Tailwind, Flask

- Developed and fine-tuned a **convolutional neural network** for ocular disease detection using **TensorFlow** and **OpenCV**, achieving high diagnostic accuracy on fundus image datasets.
- Implemented data preprocessing and augmentation pipelines with **Python** and **Pandas** to improve model generalization on diverse real-world images.
- Built a secure, user-friendly web application with **Flask** for backend integration and a **React-**based frontend, enabling healthcare professionals to easily upload images and view AI-generated predictions.

SKILLS

Programming Languages: Python, Java, JavaScript, PHP, HTML, CSS, SQL, Bash, Verilog, C, C#, C++, Git **Frameworks/Libraries**: Maven, Selenium, TestNG, JUnit, TensorFlow, scikit-learn, Flask, Pandas, MySQL, MongoDB, React.js, Node.js, Express.js, Firebase, Angular.js, Django, Spring, SonarQube, PMD, Azure