VISHV RAVAL

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EDUCATION

Toronto Metropolitan University   **Toronto, Ontario**
Bachelors of Science in Computer Science   Expected April 2028
Scholarships & Awards: Dean's List '23   GPA: 3.82 / 4.33
Relevant Courses: Python , Java (OOP's) , digital system design, Computer Architecture ,Shell Scripting & C/C++ , Operating Systems

EXPERIENCE

Toronto Transit Commission(TTC)   **Toronto, Ontario**
Customer Service Representative   **May 2024 – Present**
- Provided accurate information to passengers about transit schedules, route changes, and closures, effectively guiding them towards alternative transportation options during service disruptions.
- Managed unexpected closure events, coordinating with teams to reroute transit services and communicating these changes to over **5,000** passengers in a single day.
- Collaborated with **10+** teams, each with their own expertise, to stay informed about transit operations and service changes.
- Interacted with a diverse range of passengers, addressing their queries and concerns with empathy and patience, contributing to a **90%** satisfaction rate in post-event passenger surveys.

PROJECTS

CodeContexter Chrome Extension   **November 2024**
[JavaScript, HTML, CSS]
- Built a Chrome extension to consolidate and process various files, with a focus on coding-related files. Implemented efficient logic to parse, extract, and merge code while preserving syntax and structure.
- Created a responsive popup interface using HTML, CSS, and JavaScript for seamless file uploads and on-demand context file generation.
- Improved chatbot reply accuracy by **30%** through optimized data consolidation processes and refined context generation from files.

Black-Scholes Options Analytics   **November 2024**
[Python, SQL, Power BI]]
- Designed and managed a SQL database containing about **100,000** options records, optimizing data storage and retrieval using indexes and normalized schemas.
- Implemented the **Black-Scholes model** in Python, using **SciPy** for cumulative distribution functions and achieving accurate calculations for **5 key Greeks** (Delta, Gamma, Vega, Theta, Rho).
- Automated the **data pipeline** to clean and preprocess raw datasets **(up to 10MB per file)** using **Pandas**, reducing manual intervention and ensuring consistent formatting for database ingestion.
- Built a **Power BI** dashboard connected to a **SQL** database, visualizing real-time data with slicers for strike price, expiration date, and volatility; created **5+** key visualizations including heat maps and sensitivity analysis charts.
- Wrote **SQL queries** for advanced analytics, processing over several **thousand** of data monthly, including grouping by expiration date and calculating average call and put prices.

CodeContexter Chrome Extension   **November 2024**
[JavaScript, HTML, CSS]
- Analyzed **265** years of climate data (1750–2015) using *C* to calculate yearly, monthly, and century-wise temperature averages.
- Identified top **10** hottest/coldest months and years, processing data from a **3,000+** row CSV file.
- Created **5+** visualizations using **GNUPlot**, including line, bar, and error bar plots to showcase climate trends.
- Produced a detailed report summarizing findings, contributing to climate-related data analysis.

HEADSTART   **March 2024**
[Figma]
- Designed the mobile app prototype **Headstart** using Figma.
- Created **interactive wireframes** using Figma's component-based design and prototyping tools, incorporated features like job recommendations, AI-based resume feedback, a mentorship system, also, built localized support features such as,multilingual interfaces, form-filling assistance, an FAQ section, and a chatbot.
- Built a business plan for the app and presented both the prototype and plan to panel members, winning **2nd place** in the case-compitition challenge.

VOLUNTEERING AND LEADERSHIP

IEEE COMPUTER SCIENCE CHAPTER TMU(IEEECSTMU)   **June 2023 - Present**
Principle Event Co-ordinator, Tech events, Projects and Competitive Programming

TECHNICAL SKILLS

- Java, Python, C/C++, SQL, JavaScript, HTML/CSS, R ,Shell (Bash), Lisp, Figma, Power Bi.