

# HARSHIT SOHANEY

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## SUMMARY OF QUALIFICATIONS

**Languages:** C/C++, JavaScript, Rust, Python, SQL, Rust, C# | **Web:** React, Django, Docker, TCP/IP Network C, Nginx  
**Software & Frameworks:** Git, Jujutsu (VCS), PostgreSQL, OOP Paradigm, Vercel, Google Cloud (GCP)  
**Miscellaneous:** Figma Design, Product UX Design, Relational Database Design, Agile Development, Software Communication

## EXPERIENCE

### Software Engineering Intern

May 2023 – Aug 2024

*Mozilla Corp.*

*Toronto, ON*

- Engineered a robust **versioning architecture** for Firefox's anti-tracking feature, thereby enabling the use of up-to-date protection lists on iOS, markedly improving privacy for **100% iOS Firefox users**
- Implemented the browser standards spec for **Storage Access API** by upgrading the storage access scope from per page to per frame, strengthening **cross-site security** on Firefox and increasing alignment to other major web browsers
- Revamped the front-end and back-end architecture for Firefox's **Clear Browsing Data** feature using **C++** and **JavaScript**, enhancing privacy and optimizing performance for **3 million+** daily users

### Application Developer Intern

May 2022 – Aug 2022

*Softchoice Corp.*

*Toronto, ON*

- Optimized API logging tables with **Object Relational Mapping** using **LINQ to SQL** queries and improved access time from **30 seconds to 2 seconds**
- Improved the front-end & back-end for **Single Page Applications** on Softchoice's portal using **.NET Core & C#** to help users navigate items efficiently
- Implemented a planning interface by creating APIs to assist in determining development time and creating tasks for internal developer tooling

## PROJECTS

### Syllabyte | *mysyllabyte.com*

May 2023 – Present

- Developed and launched a personalized study app, featuring a proprietary **recommendation algorithm** that optimizes task prioritization, expanding the user base to **55+ university students** through continuous iteration based on user feedback
- Architected a scalable deployment infrastructure on a **Digital Ocean Linux droplet** with **Docker**, while implementing secure **auth flow** and comprehensive user management systems on a **PostgreSQL** database server
- Researched and prototyped a PDF scanning feature using **LLM Prompt Engineering**, projected to reduce task input time by **2-4 hours** per week for each user

### IDK them | *An improved Spotify library search – idk-them.vercel.app*

Mar 2024

- Developed a **React application** that integrates with the Spotify API, allowing users to search for artists within playlists in their library, enhancing discovery and improving the Spotify library search
- Achieved an **80% reduction** in storage usage by implementing compression techniques with **lz-string**, enabling efficient browser-based data management without compromising application performance
- Designed and implemented a sophisticated **API guardrail system** with dynamic rate limiting, ensuring consistent performance during peak usage and enhancing overall user experience

### GIS Mapping System | *University of Toronto ECE297*

Jan 2022 – May 2022

- Developed a **navigation system** using OpenStreetMap with **C++** and utilized **chunk rendering** to improve panning/movement efficiency by **90%**
- Applied algorithms such as **Dijkstra** and **A\*** to optimize path-finding and included features such as directions, transit and auto complete search bar
- Employed heuristic algorithms such as **2-opt** and **Simulated Annealing**, along with techniques like **multi-threading**, to find an optimum solution to the Travelling Salesman Problem

## EDUCATION

### University of Toronto

Sept 2020 – May 2025

*Bachelor of Applied Sciences*

*Major in Computer Engineering, Minor in Artificial Intelligence*

Dean's Honor List 2020 - 2023

**Teaching Assistant** Operating Systems ECE344 - *Sept 2023 – Dec 2023*

**Relevant Coursework:** Computer Security, Introduction to Machine Learning, Data Structures & Algorithms, Operating Systems, Probability & Statistics, Computer Networks, Introduction to Databases

**Clubs & Positions:** **UofTAI** - Director of *ProjectX*, **UofTHacks** - Executive *uofthacks.com*, **UofT Musical Design** - Founder/President, **LearnAI** - Curriculum Content Lead, **ECE Club** - Events Director, **Performing Musician** - Guitarist