

Karanvir Heer

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SKILLS

Languages: Java, Python, JavaScript, SQL (Postgres), HTML, CSS

Frameworks: React, Node.js, Tailwind CSS

Developer Tools: Git, Docker, JMeter, Selenium, Postman

EDUCATION

Toronto Metropolitan University

Bachelor of Science in Computer Science with Co-op, 3.8 GPA

Toronto, ON

Sept. 2020 – Apr. 2024

EXPERIENCE

Junior Software Engineer Co-op

Jan. 2023 – Aug. 2023

Ontario Ministry of Children, Community and Social Services

North York, ON

- Automated role-specific login verification in a government platform using Java and Selenium, preventing misrouting bugs and strengthening security for 500,000+ users before production.
- Led a Selenium test automation demo explaining design choices, role-specific flows, and providing documentation to support future framework development.
- Load-tested a high-traffic messaging API with JMeter and verified UI delivery across user types using Selenium, improving reliability and reducing pre-production failure risk.
- Created knowledge transfer videos and guides on JMeter workflows and test cases to accelerate onboarding and reduce reliance on direct support.
- Reduced test case runtime by 45+ seconds by integrating the Mailinator API for email verification, streamlining onboarding flows and boosting automation efficiency.

Identity and Access Management Analyst Co-op

May 2020 – Dec. 2021

Enbridge

North York, ON

- Ensured TSA Cybersecurity Mandate compliance across Canada, US, and India teams by coordinating password resets, enforcing 2FA, and escalating non-compliance, helping avoid multi-million dollar fines.
- Oversaw offshore team compliance tracking during a TSA Cybersecurity Mandate, delivering daily analytics to leadership while meeting personal quotas to support on-time company-wide compliance.
- Conducted a week-long audit of service desk protocols through social engineering tests, identifying a crucial verification gap and helping strengthen internal security training.
- Participated in daily Agile stand-ups to communicate progress and blockers, contributing to team alignment and iterative development throughout the project lifecycle.

PROJECTS

Statflix | *JavaScript, React, PostgreSQL, Docker, TMDb API*

Website **GitHub**

- Developing a full-stack web app to analyze and visualize user Netflix viewing history into personalized analytics.
- Aggregated and enriched user viewing data to compute personalized statistics such as total watch time, top genres, binge streaks, unique titles, and oldest watched content using TMDb metadata.
- Designed a fuzzy title-matching algorithm to map messy or ambiguous titles to TMDb entries, achieving over 95% match accuracy and reducing false positives across user-submitted CSVs.
- Implemented a PostgreSQL-backed caching system to store 32,000+ Netflix movies and TV shows, reducing redundant API calls and enabling faster processing of large watch histories across multiple users.

Student Marketplace | *JavaScript, React, Java, Spring Boot*

Website **GitHub**

- Built a full-stack web app for TMU students to post and browse classified ads, featuring role-based dashboards for users and admins
- Implemented secure authentication with email verification, password reset, and Google reCAPTCHA to prevent unauthorized access.
- Added modules for textbook exchange, study groups, and tutoring, each with form handling and automated email notifications for user engagement.
- Developed filtering and search features to improve ad discoverability by category, price, and location.