# Sahib Singh

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in sahib-singh-malhotra

### **SUMMARY**

Junior Software QA and Systems Testing enthusiast with hands-on experience in web and embedded application testing, basic networking, and Linux environments. Adept at writing test cases, working in cross-functional teams, and using version control and CI/CD tools. Passionate about robotics, system reliability, and quality engineering in complex environments.

### **WORK EXPERIENCE**

### **Georgian College**

September 2024 - December 2024

Social Innovator Drafter

- Designed and developed a responsive web platform using HTML, CSS, JavaScript, and Shopify
   API to assist individuals experiencing household food insecurity.
- Collaborated with the Simcoe Muskoka District Health Unit (SMDHU) to align features with community needs and ensure content accuracy.
- Presented the site to SMDHU, gaining valuable feedback that guided final feature implementation.
- Performed manual testing for performance, responsiveness, and accessibility across devices.
- Used Google Analytics and Lighthouse to assess SEO, UX, and site load time, with iterations based on results.
- Contributed in **agile sprints**, team retrospectives, and a final stakeholder demo.
- Focused on usability, accessibility, and mobile responsiveness to ensure inclusivity for diverse user groups.

### **EDUCATION**

# **Georgian College**

September 2023 - April 2025

Computer Programming - 4.0

### **PROJECTS**

## **Student Database Management System**

- **Developed** a full-stack **web application** for **student course registration** and **school data management**, designed to streamline enrollment and administrative tasks.
- Deployed using Azure SQL Database and hosted on Azure App Services.
- Implemented role-based authentication and authorization to separate access for students, faculty, and admins.
- Tested form validations and CRUD operations across user roles.
- Integrated **GitHub Actions** for CI/CD and participated in agile team sprints.
- Designed and tested dynamic data forms using Bootstrap, ensuring clean layout and responsive UI.

# Style Stage Challenge 🖸

- Participated in a web styling challenge where the HTML structure was fixed and unchangeable
   only CSS could be used to implement the design.
- Created a fully responsive, accessible theme using CSS Grid, Flexbox, and media queries.
- Added animations and visual transitions to enhance user engagement and navigation flow.
- Focused on semantic styling, WCAG accessibility standards, and cross-browser compatibility.
- Closely followed Figma mockups to ensure visual alignment and UI accuracy.

# School Database Management System 🛂

- Developed a full-stack web application for student course registration and school data management, designed to streamline enrollment and administrative tasks.
- Deployed on Render with MongoDB as the primary database for secure and scalable data storage.
- Implemented role-based authentication and authorization to separate access for students, faculty, and admins.
- Designed responsive UI with Bootstrap and validated dynamic data forms for a smooth user experience.
- Built and tested CRUD operations across different user roles using Express routes and Mongoose schemas.
- Configured GitHub Actions for continuous integration and deployment (CI/CD).
- Participated in agile sprints, handling task breakdowns, pull requests, and team code reviews.

# Household Food Insecurity Web Platform 🛂

- Designed and developed a fully responsive website to support individuals facing household food insecurity, with features aligned to community health needs.
- Integrated Shopify API for resource listings and community support access.
- Collaborated with the Simcoe Muskoka District Health Unit (SMDHU) to ensure accuracy, cultural relevance, and feature alignment with public health goals.
- Conducted **manual testing** across multiple devices and browsers for **performance**, **accessibility**, and **responsiveness**.
- Used **Google Analytics** and **Lighthouse** to evaluate and improve **UX**, **SEO**, and **load times**, iterating based on performance metrics.
- Participated in **agile sprints**, retrospectives, and presented a working demo to key stakeholders.
- Prioritized usability, accessibility, and mobile-first design to ensure inclusive access for all user groups.

#### **SKILLS**

Programming & Scripting: JavaScript, Python (basic), Bash, HTML, CSS, Java, C#
Frameworks & Libraries: Node.js, Express.js, Bootstrap, Mongoose, React.js
Testing & QA: Manual Testing (Functional, Regression, System), Test Case Design, Form Validation, Google Lighthouse, Selenium (learning)

**Version Control & CI/CD**: Git, GitHub, Bitbucket, GitHub Actions, Azure Pipelines, Jenkins (basic)

Databases: MongoDB, Azure SQL Database

**DevOps & Cloud**: Render, Azure App Services, GitHub Actions

**Tools & Platforms**: Jira, VS Code, Postman, Google Analytics, Figma, Shopify API **Operating Systems**: Linux (CLI, scripting), Windows

**Soft Skills & Collaboration**: Agile methodologies, Team sprints, Stakeholder demos, UX & Accessibility focus, Presentation skills

### **CERTIFICATE**

Microsoft Certified: Azure Fundamentals
Azure DevOps for Beginners
Networking Basics
Learning Jira (Cloud Edition)
CTN Changemaker Micro Certificate

### **AWARD**

## Sustainability Award – Essential Future Building Hackathon

- Collaborated in a team of two to design and build a Net Zero dam model using 100% repurposed materials, aiming to minimize environmental impact.
- Conducted intensive brainstorming sessions to conceptualize a dam that repurposes every form of waste — ensuring that no byproduct goes unused and contributes to the dam's functionality.
- Demonstrated **strong leadership** and **problem-solving skills** under strict time constraints, taking initiative in both technical design and team coordination.
- Delivered a **compelling technical presentation** to a panel of industry judges, clearly articulating the engineering rationale and sustainability goals.
- Awarded first prize for innovation, execution, and environmental impact.