

# Jagraj Singh Gill

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## EDUCATION

### Simon Fraser University

*Bachelor of Science in Computing Science*

Burnaby, BC

*Expected Dec 2027*

## EXPERIENCE

### Software Engineering Intern

*Savi Finance*

May 2025 – Aug 2025

*Toronto, Ontario*

- Engineered cross platform modules for a fast growing Fintech SaaS platform (100+ active users), unifying React and React Native logic with MongoDB backed services; reduced release time by 20% and streamlined code reuse across mobile and web.
- Led development of an in place account editing feature using React and Redux, enhancing the account management experience and cutting form submission errors by 30%, enabling users to update credentials without leaving the dashboard.
- Built and integrated image upload functionality using AWS S3 and GraphQL, supporting profile photo and document uploads with preview and cache busting; improved upload reliability and reduced image load failures by 20%.
- Refactored login UI and form validation using React and custom hooks, adding real time feedback and reducing user login errors by 45%, improving authentication success rates and onboarding efficiency.

## PROJECTS

### Investment Tracker | *Java, Swing, JFreeChart*

- Built a Java desktop app with a Swing based GUI to visualize investment growth, rendering side by side charts using JFreeChart.
- Engineered portfolio logic to calculate asset performance in real time, based on live spot prices, quantities, and historical purchase data.
- Improved user reliability through exception handling and input validation, ensuring consistent chart behavior for dynamic asset entries.

### Pothole Tracker | *React, Python, MongoDB, Node.js*

- Built a full-stack web app to crowdsource pothole reports, enabling real time tracking and public visibility to improve civic response times and accountability.
- Developed RESTful APIs with Node.js and Express to handle user submissions, geolocation, and status updates, reducing manual reporting by streamlining data collection.
- Provisioned and deployed MongoDB and backend services on a Linux server, achieving low latency access and 99% uptime for city wide pothole data.

### BMP Viewer and Image Manipulator | *Python, Tkinter*

- Built a Python GUI application to render and inspect uncompressed BMP files, displaying metadata like file size, dimensions, and bit depth in real time.
- Parsed BMP headers and pixel data manually using byte level operations, supporting 1, 4, 8, and 24 bit formats without relying on third party libraries.
- Implemented image editing features including RGB channel toggling, brightness adjustment, and custom scaling using pixel matrix transformations and Tkinter widgets.

## SKILLS

**Languages** C, C++, Java, JavaScript, Python, HTML5, CSS

**Frameworks** React.js, Node.js, Express.js, GraphQL

**Databases** MongoDB, MySQL, SQLite

**Tools** Git, Docker, VS Code, PyCharm, IntelliJ