

# Laksh Agarwal

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## TECHNICAL SKILLS

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**Languages:** Java, Python, JavaScript, TypeScript, C/C++, SQL, Dart  
**Technologies:** React, Flutter, Selenium, MS SQL, SQLite, HTML, CSS, Figma  
**Developer Tools:** Git, VS Code, IntelliJ, Android Studio, Docker, Jira

## EXPERIENCE

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**Software Developer - AI (Co-op)** Exp: Sep 2023 – Dec 2023

*AI Research Lab, Simon Fraser University* *Burnaby, BC*

- Future Engagement: AI Software Developer role emphasizing the design and deployment of AI solutions tailored for unique applications.

**Research Assistant** Sep 2021 – Present

*OPA Lab, Simon Fraser University* *Burnaby, BC*

- Collaborated with a team of 5 researchers to identify knowledge gaps and develop 6 comprehensive research plans, contributing to the publication of 4 research papers in high-impact academic journals.
- Aided in the design and implementation of 10+ experimental studies across various cutting-edge research projects, applying rigorous scientific methodologies and significantly improving data accuracy.
- Leveraged advanced statistical software (Stata) to cleanse and analyze research data from over 8 projects, distilling complex findings into clear, actionable insights for stakeholders.

**Software Developer - Web (Co-op)** May 2022 – Dec 2022

*Thrive Health Inc.* *Vancouver, BC*

- Contributed to the design, implementation, and testing of 10+ new features for web-based healthcare applications using TypeScript, resulting in a 20% improvement in user experience and functionality.
- Developed and maintained a suite of 35+ automated regression tests using Selenium and xRay, improving test efficiency by 50% and reliability by 30%.
- Actively assisted in the hiring and onboarding of 3 new developers by conducting interviews, evaluating technical assessments, and composing detailed onboarding documentation, reducing their ramp-up time by 30%.

## PROJECTS

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**Cybernetic Sabotage WebApp** | *Full-stack - JavaScript, HTML, CSS, SQLite* May 2023 - Aug 2023

- Designed and developed an open-source and interactive browser-based educational game using JavaScript, HTML, CSS, and SQLite, while managing version control using Git to efficiently track and handle code changes.
- Built a robust frontend user interface and a secure backend, emphasizing scalability and user-friendly interaction.
- Oversaw the agile project life cycle from conception to current development stage, which includes system design, coding, and the formulation of rigorous testing protocols.

**Deny and Conquer - Multiplayer Game** | *Java, Socket Programming, Threading* May 2023 - Aug 2023

- Designed and developed an interactive multiplayer game based on client-server architecture, allowing players to compete in real-time to claim cells on a shared grid.
- Incorporated TCP sockets with multithreading to manage multiple client connections simultaneously, ensuring synchronized gameplay, while also crafting a unique application-layer messaging scheme for smooth communication.
- Enhanced the user experience through an intuitive interface, offering choices to host or join games, and implemented a dynamic game grid for players to lock, claim, or unlock cells, driving engagement and competition.

**AstroDash - Arcade Style Game** | *Java, Maven, Testing* Jan 2021 – Apr 2021

- Crafted a comprehensive set of use cases detailing system behavior, which formed the basis for designing a robust system architecture using UML class diagrams, aiding in clear communication among the development team.
- Implemented the planned system design and developed core game functionality using Java and Maven, culminating in a fully operational arcade-style game.
- Executed thorough unit and integration testing to ensure comprehensive coverage and high quality, identifying and resolving 10+ bugs, thereby ensuring a smooth, player-ready gaming experience.

## EDUCATION

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**Simon Fraser University**, Burnaby, BC Exp: April 2024

*B.Sc. in Computing Science, Certificate in Innovation and Entrepreneurship* GPA: 3.78