

# Abhiroop Sikand

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## EDUCATION

### Bachelor of Engineering, *Specializing in Software Engineering – Big Data*

2022-2026

York University, Toronto - Academic Excellence Scholarship (95%+)

- Courses: Data Structures & Algorithms, Advanced Object-Oriented Programming, Database Systems, Software Development, Embedded Systems, Operating Systems, Digital Logic Design, Probability & Statistics

## PROJECTS

### Restaurant Reviewer App:

- **Led a team** to design an end-to-end application using Java, projected to increase restaurant visibility by **45%**.
- Developed and implemented an optimized database architecture with **38% faster response times**
- Created effective user interface illustrating proficiency in GUI design and SQL.
- Built features for user interaction, review management, filters, food logs, and gamification elements.

### Chrome Extension – Article Summarizer:

- Designed a software tool using JS and HTML/CSS to summarize articles, reducing reading time by **60-70%**
- Integrated API to quickly extract key information from lengthy articles, enhancing efficiency and comprehension.

### Weather App: <https://abhiroop-sikand.github.io/Weather-App/>

- Designed and built a user-friendly weather application using JavaScript and HTML/CSS, allowing users to access real-time weather forecasts with **90%** reliability.
- Showcase technical skills and understanding of **web development** by successfully creating and launching a functional platform.

### Self-Watering Plant System:

- Developed an automated system to measure soil moisture levels and hydrate plants when levels fall below a threshold, generally boosting plant health by **30%**.

### Autonomous-Vehicle:

- Created a robotic system featuring path following and obstacle avoidance with **96% accuracy**.
- Programmed microcontroller and ultrasonic/IR sensors to optimize the embedded systems algorithms.

### Space Invaders:

- Using expertise in **software/game development** to successfully build a Space Invaders-style game in Java with comprehensive user interface features and high-score functionality.

### Pokémon Battle Simulator:

- Exhibited OOP skills in Java by designing and implementing a feature-rich animated game with an intuitive user interface and an efficient high-score tracking system.

## LEADERSHIP EXPERIENCE

### Lassonde Engineering Society: Academic Committee

June 2023 - Present

- Member of the Academic Committee responsible for addressing issues across various faculties while identifying and discussing academic concerns within the university.
- Collaborating with committee members to plan and host diverse initiatives resulting in fostering academic engagement and problem-solving skills.

### SARIT – Micro mobility by YorkU: Representative

January-March 2024

- Develop a comprehensive understanding of features and research being conducted on the vehicle, to communicate the technical aspects of the SARIT and the significance of the research being conducted.

## TECHNICAL SKILLS

**Programming Languages:** Java, Python, C, C#, HTML/CSS, MATLAB, JavaScript, SQL, RISC-V, Verilog, Event-B

**Tools & Frameworks:** Git, CMD, Maven, Arduino, Quartus, Rodin, Microsoft Suit, Google Workspace, Photoshop, Lightroom