

# Harsh Malhotra

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## Skills

**Languages:** Java, JavaScript, Python, SQL, HTML, CSS, C (Learning currently in course)

**Framework & Libraries:** Node JS, Express JS, Three JS, Puppeteer JS, Mongoose(ODM), JUnit5

**Databases:** PostgreSQL, MySQL, MongoDB

**OtherTools:** Git, Github, Postman, Playwright, Restful API, Learning (Bash and Linus this semester Sept-2023)

## Education

### York University - Lassonde School of Engineering

BA - Computer Science **GPA: 3.4/4.00**

April 2025  
North York, ON

- Relevant Courses: Database Management, Object Oriented Programming, Data Structures and Algorithms

### University of Toronto

HBSc - Biochemistry Specialist

2014 – 2019  
Toronto, ON

## Projects (More on [my website](#))

**News-Nerd** Node.js, Puppeteer, MongoDB

- › Developing a **full-stack application** that aggregates and displays the latest updates from CP24 World News, BBC TechNews, and the FreeCodeCamp YouTube channel on a single page, creating a convenient and comprehensive news source
- › **Aiming** to compile and store data in MongoDB to conduct **trend and sentiment analysis** using **Google Cloud APIs**.

**CinemaCatalog** Node, Express, MongoDB, Postman

- › Created a robust API meant for retailers/online stores to **manage and efficiently store** movie data, adhering to **RESTful principles** and **MVC Architecture**.
- › Implemented **CRUD** functionality for movie data including genre grouping and **search functionality** like filtration, limiting, and pagination; allowing seamless interaction via **HTTP requests**.
- › Wrote a **custom script** to automate data loading and handle deletions within the database, streamlining database management and data consistency.

**H2O Helper** Java, Firmata4J Library, Arduino

- › Created an **event-driven system** with **practical application** in plant nurseries, farms or personal gardens that triggers water pumps based on soil moisture level. **Troubleshooted** software and hardware defects.
- › Leveraged Firmata4J API for communication between **hardware and software**.

**BlinkenBuddy** C, XC8 Compiler, Pic32 microcontroller

- › Developed an **embedded software application** for a microcontroller on a breadboard.
- › **Programmed** to control the on/off states of multiple LEDs based on input from buttons.
- › **Tested and debugged** the code entirely on a breadboard, which provided an opportunity to learn about **hardware register manipulation**

## Work Experience

### Analytical Instrument Specialist

Toronto Research Chemicals

May. 2021 - Feb. 2022  
North York, ON

- › Analyze **data sets** to **identify trends** and instrument faults, promptly resolving issues to maintain **accurate and reliable results**. Also maintained and kept updated **organized documentation** for instrument results.
- › Fostered effective **communication** and **collaboration** with scientists to ensure precise chemical analysis using NMR and CHN techniques, guaranteeing testing accuracy and **high-quality results**.

### Analytical Chemist

Toronto Research Chemicals

Sept. 2019 - Aug. 2021  
North York, ON

- › Compiled and **interpreted data** from **multiple tests**, showcasing analytical and data interpretation skills.
- › Maintained clear and **effective communication** with instrument operators, ensuring the **exchange of critical information** related to hazards, techniques, and methodologies.