

Yuvraj Sehgal  
St Catharines, ON, Canada  
[17yuvraj.sehgal@gmail.com](mailto:17yuvraj.sehgal@gmail.com)  
437-335-5700

[Portfolio](#) | [github.com/17YuvrajSehgal](https://github.com/17YuvrajSehgal) | [linkedin.com/in/yuvraj-sehgal](https://linkedin.com/in/yuvraj-sehgal)

SUMMARY OF SKILLS

- **Programming Languages:** Java, Python, JavaScript
- **Web Development:** Spring Boot, FastAPI, ReactJS, Angular, HTML/CSS, Restful APIs
- **Database Management:** MySQL, Oracle DB, PostgreSQL, MongoDB, Neo4j
- **Testing and Automation Tools:** Selenium, Appium, Cucumber, Web Driver, JUnit, Karma
- **Others:** GraphQL, Maven, Gradle, Docker, Git, GitHub, JIRA, Confluence, Bitbucket, SDLC, LangChain

EDUCATION

**Bachelor of Science (Honours), Computer Science (Intelligent Systems)** Jan 2021 - Jan 2025

Brock University, St Catharines, ON

- **GPA: 87% | Dean’s List: All Semesters**
- **Relevant Coursework:** Artificial Intelligence, Neural Networks, Genetic Programming, Data Structure and Algorithms, DBMS, Web Development, Calculus, Theory of Computation, Statistics, Data Science, Computer Networks, Software Testing and Debugging

WORK EXPERIENCE

**AI Developer** Aug 2024 - Present

Mengalo, Toronto, ON

- **Designed the system architecture** and built a **full-stack AI** inbox for automated message generation powered with **agentic AI** using **Python’s Fast API** and **React**.
- Leveraged **NLP** libraries for sentiment analysis of past emails, enabling agents to adapt its behavior based on user interactions.
- Designed a **LLM** and **RAG** powered **Chatbot** for real time **data analytics** with **Python, LangChain, React**, and **Neo4j**.
- Designed a database schema and an automated pipeline for cleaning and transforming data from a PostgreSQL on AWS to a **Neo4j** graph database on cloud.
- Implemented code reviews, **secure** coding practices, **git** management, and **agile** methodologies, promoting productivity and code quality in startup environment.
- Collaborated with software development teams, product managers, and client stakeholders to identify improvements and new features for existing products.

**Research Assistant** Jan 2024 - Dec 2024

Brock University, St Catharines, ON

- Received prestigious **Match of Minds Scholarship** for exceptional academic performance and research potential, as sole recipient in the department.
- Created an **open-source dataset** of over 2,000 research artifacts, promoting collaboration and accessibility; projected to improve research efficiency by 30%, accelerating discovery and innovation.
- Conducted **empirical research** with Professor to evaluate capability of generative AI in evaluating software artifacts for 40 conferences.
- Designed an Artifact Documentation tool with advanced **OOPs in Python** and **OpenAI** and **Neo4j**, analyzing conference acceptance probabilities with AI, decreasing documentation time by 90%.

**Automation Engineer Coop** May 2024 - Aug 2024

Scotiabank, Toronto, ON

- Learned Android automation and built automation for 20 test case scenarios using **Java, Selenium**, and **Appium**, reducing testing time by over **75%** within four months.
- Developed a **Java** package with advanced **OOPs** concepts to manage boilerplate code for **Android automation**, maximizing reusability and saving time for future testing efforts.
- Collaborated with the business quality assurance team to **design** test case scenarios aligning with business requirements.
- Integrated a reporting module leveraging **HTML/CSS** to generate comprehensive test reports for each test case, to cut down the validation time by 50%.

**Full Stack Developer Coop**  
Scotiabank, Toronto, ON

May 2023 - Aug 2023

- Delivered a comprehensive test suite in **Java JUnit and Karma** for the LMS website, **increasing** test coverage by **15%** and ensuring compliance with the bank’s **85%** minimum coverage mandate.
- Collaborated** with another department to improvise an automation script written in **Python**; extended its functionality **reducing** manual file management time by **20%**.

**Automation Engineer Coop**  
Scotiabank, Toronto, ON

Sep 2022 - Dec 2022

- Automated web testing regression test suites utilizing **Selenium and Cucumber BDD in Java**, integrating with the bank’s automation framework and **reduced** testing time by **70%**.

ACADEMIC PROJECTS

**Stock Market Prediction – Neural Network**  
Brock University, St Catharines, ON

Dec 2024

- Utilized **Artificial Neural Network** to predict stock prices using **TensorFlow**.

**News App - Android**  
Brock University, St Catharines, ON

Dec 2024

- Developed a feature-rich **android** news application utilizing News-API, enabling categorical news browsing, multilingual search, bookmarking with built-in database support, and user preferences storage via shared preferences.

**AI Powered Web Summary Tool – Spring Boot**  
Brock University, St Catharines, ON

Apr 2024

- Created an **AI** tool utilizing **Java Spring Boot** and **OpenAI** to summarize web pages, serving as **Scrum Master** for a team of five and a back-end developer

**Stock Market Prediction – Genetic Programming**  
Brock University, St Catharines, ON

Apr 2024

- Designed a **genetic programming** model in **Java** Operating on a regression algorithm and achieved over **80%** accuracy in predicting NASDAQ and S&P 500 stock prices.

**Village War Game – Java**  
Brock University, St Catharines, ON

Apr 2023

- Engineered a multiplayer game with advanced **OOPs** principles, improvising performance through a **multi-threaded client-server** model leveraging **UDP**.

SCHOLARSHIPS AND AWARDS

**Match of Minds Scholarship**

Sept 2024

- Awarded a research grant as the sole recipient in the department, based on faculty recommendations.

**Golden Key Award**

Jan 2023

- Inducted into the Golden Key International Honor Society for academic achievement, placed within the top 15% of university.