

GURVEER GREWAL

+1 289-680-9080 • g26grewa@uwaterloo.ca • Portfolio: <https://ggrewal.xyz>

SKILLS

Languages: JavaScript, HTML, CSS, Python, C++, C, MySQL, Java, PHP and Tableau.

Frameworks/Libraries: React.js, Vue.js, MongoDB, Express.js, OpenCV, TensorFlow, Laravel, AzureAI, Selenium, Cypress and Jest.

Developer Tools: Git, Bash, Circle-CI, Docker, Microsoft Azure and Jira.

EXPERIENCE

SpotWork – Developer

May 2024 – Aug 2024

- Contributed to codebase development by collaborating with **cross-functional teams** to deliver new features and improvements..
- Optimized development processes, increasing efficiency by **25%**, which accelerated deployment cycles and reduced time-to-market.
- Managed and optimized databases, ensuring **data integrity** and **improving query performance**.

Homecare Hub – Web Developer & Software Test Engineering

Sept 2022 – Dec 2022

- Developed new features and implemented bug fixes for both front-end and back-end systems using **PHP**, **Laravel**, and **Vue.js**.
- Improved emailing system speed and reliability by over **35%** by creating event listeners and observers.
- Created and executed **automated** tests for all of the **critical controllers** using **Jest** and **Selenium** to adhere to ensure **Test Driven Development**.

PolicyMe – Technical QA Developer

Jan 2022 – May 2022

- Created **End-to-End** web application tests using **JavaScript**, **Cypress** and **Jest**.
- Implemented **slack** commands to communicate with **Circle-CI** pipelines for **parallel** testing.
- Worked with third-party **APIs** such as **Docusign**, **Slack**, **Circle-CI** and **HubSpot**.
- Deployed automated tests which allowed QA teams to reduce manual testing by over **75%**.

AltaML & Toronto Star – Junior Machine Learning Developer

June 2021 – Aug 2021

- Created an AI pipeline to create a **categorical classification** of toxic comments.
- Trained and modelled the AI using over **150,000 data points**, resulting in an accuracy of **92.8%**.
- Implemented **NLP** and **sentiment analysis** using Microsoft Azure.

PROJECTS

MERNingful Art

January 2023

React, Express, MongoDB, Node

- Developed a project that uses **DALL-E's API** to to dynamically generate and showcase unique art pieces to a wider audience.
- Experience in implementing server-side **APIs** with **Node.js** and **Express.js**, including **RESTful API** design and database integration using **MongoDB**.
- Integrated third-party APIs into the web applications to enhance functionality as well as deploying and version controlling tools like **Git** and **Netlify**.

CV-Tracker: Object Motion Detection

Sept 2022

Python & OpenCV

- Implemented robust motion detection algorithms using **Python** and **OpenCV**, employing advanced **background subtraction** techniques to isolate dynamic pixel changes.
- Leveraged state-of-the-art background subtractor methods, such as **Gaussian Mixture Models (GMM)** and **K-means clustering**, to precisely identify moving objects.
- Applied bounding box **visualization** to **highlight** and **track** detected objects, enhancing the overall accuracy and efficiency of the motion detection system.

Chess

Dec 2021

C++

- Leveraged **OOP** principles, including encapsulation and inheritance in the development of the game.
- Developed an intuitive graphical interface, enhancing user interaction and ensuring a superior **user experience**.
- Integrated an advanced AI player featuring difficulty levels that uses algorithms for strategic decision-making.

VOLUNTEER WORK

Orchard Park's Coding Club – Founder

Mar 2019 – Jun 2020

- Founded and created a club with over **20** members.
- Explained and taught club members how to solve coding problems.
- Competed against other schools in online coding **competitions**.

FIRST Robotics Team 2056 – Team Member

Dec 2017 – Dec 2019

- Organized and ran gifted days for elementary school children to learn about **coding** and **robotics**.
- Supervised code for the autonomous section of FIRST Robotics competition.

EDUCATION

The University of Waterloo •

Sept 2020 – Present

Bachelor of Computer Science.