# SUMER PUNJABI

(647)676-1554 | sumerpunjabi1@gmail.com | github.com/sumerpunjabi | linkedin.com/in/sumerpunjabi | sumerpunjabi.live

## EDUCATION

**University of Windsor,** Windsor, ON, Canada **Expected May 2024**
Bachelor of Science in Computer Science (Honors)
Minor in Mathematics
GPA: 3.33

**University of Toronto, Toronto**, ON, Canada **Aug 2019 – Aug 2021**
Bachelor of Science in Computer Science (Honors)

***Relevant Coursework:*** Data Structures and Algorithms; Numerical Analysis for Comp. Sci; Object Oriented Programming using Java; Intro to Software Engineering; Applied Computer Security; Operating Systems Fundamentals; Artificial Intelligence Concepts

## SKILLS

**Programming Languages:** Java, Python, Go, C, C#, SQL, x86 Assembly, HTML, MATLAB

**Tools and Frameworks:** Git, Docker, Jenkins, MySQL, PostgreSQL, Postman, Unity, React.js

## EXPERIENCE

**CarTrade.com,** Mumbai, Software Engineering Intern Jun 2021 - Apr 2022

- Created automation scripting in Go to concurrently fetch code quality and code smell metrics from Codacy and push them to a Prometheus time-series database, sorted based on GitHub repositories. Utilized Grafana to create a dashboard for monitoring these metrics. The script runs as a cron job using Jenkins and employs worker pools to concurrently fetch data with blocking to avoid excessive resource usage.
- Developed a microservice for server-side authorization of user JWT tokens using C# .NET and optimized storage of these tokens with Memcached in Go.
- Implemented unit testing for different microservices using a custom-built testing tool.
- Improved the efficiency and reduced the load time of server-side rendered websites through optimization and removal of unused code.

## PROJECTS

**Gesture Detection System:**

- Utilized machine learning and computer vision techniques to build a functional gesture detection system.
- Developed using Python, OpenCV, Pillow, and NumPy.
- System primarily detects open palm or closed fist gestures.
- Extended the project to play the Google dinosaur game, where a closed fist gesture makes the dinosaur jump to pass obstacles.

**Food Dictionary API:**

- Utilized programming skills in Python, web development frameworks and knowledge of database management to build a functional API.
- API returns nutritional information such as calories, fat, serving size etc... in JSON format when queried.
- Data is collected from multiple reliable sources and stored it in a MySQL database.
- Normalized the database to consist of relational tables in third normal form (3NF)
- API is built using Python, FastAPI and tested using Postman.

**Aimlabs Object Detection:**

- Successfully implemented object detection in the video game Aimlabs using Pytorch and YOLOv7
- Utilized Pytorch to construct and train the model on a dataset of Aimlabs game frames.
- Optimized the model for high accuracy and low false positives in object detection.
- Achieved an F1 score of 0.97 for detection.
- Model achieved one of the highest scores in the world for this game.