

# Dilpreet S. Chana

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## WORK EXPERIENCE

### OPTIMOTIVE TECHNOLOGIES | SOFTWARE ENGINEER

August 2016 - Present | Windsor ON

Optimotive Technologies is a tech startup building innovative automotive applications. Optimotive is focused on developing vision technology for the interior of a car.

- Created camera technology for vehicle interiors that allows the car to know what is happening within the cabin.
- Collaborated with a development team of 4 to complete projects using **OpenCV**.
- Winner of the EPICenter accelerator best tech startup award out of 12 startups.
- Completed tasks using the scrum development ideology.

### ARTEMIS ENGINE | FULLSTACK DEVELOPER

July 2015 - May 2016

Artemis is a modern cross-platform 2D game engine.

- Developed Artemis Engine in **C#** using **Monogame/XNA** libraries in **Visual Studio**.
- Implemented unique flow control objects allowing users to create a multi-page application with great efficiency.
- Designed to allow users to focus on developing game ideas rather than code.
- Developed a simplified method of game animation and graphical augmentation.

## PROJECTS

### WINGBOT | [HTTPS://GITHUB.COM/ERICPICKUP/WINGBOT](https://github.com/ericpickup/WingBot)

Hack the Valley 2018

Profiling tool made with **Python/Node.js** that scrapes info from social media profiles using the **Tweepy/Twitter API**

- Developed real time machine learning algorithms to identify different people in pictures using **computer vision**.
- Implemented the Watson API for natural language processing of tweets to determine the levels of a person's emotions and interests.

### PREFERENCE | [HTTPS://GITHUB.COM/OPTIMOTIVE/PREFERENCE](https://github.com/optimotive/preference)

June 2016 - August 2016

The preference system recognizes the user's face and outputs all preferences (seats, radio, etc.) in the car.

- Designed the Preference system in **C++** using **OpenCV** libraries.
- Implemented custom facial recognition algorithms with 80% accurate recognition.
- Engineered custom **PCBs** and electrical systems to bypass the car's central computer.

### HARRY POTTER: NEW HORIZONS | [HTTPS://GITHUB.COM/DSCHANA/FINAL-PROJECT-11](https://github.com/dschana/final-project-11)

Grade 11 Final Project

- Created a partial remake of Harry Potter for the Gameboy colour in **python**.
- Used object-oriented design to optimize and organize program flow.

## EDUCATION

### UNIVERSITY OF WINDSOR | HONOURS COMPUTER SCIENCE WITH CO-OP AND MINOR IN MATHEMATICS

Sept. 2016 - Present | Expected 2020 | Windsor ON.

Major Average: 85.75

## EXTRA CURRICULAR

### COMPUTER SCIENCE GAMES

- Participated in the annual CS Games in 2017 and 2018.
- Competed in challenges from various disciplines of computer science including **artificial intelligence** and **theoretical computer science**.
- Achieved first place in the **A.I.** event and third in **Web Development**.

REFERENCES AVAILABLE UPON REQUEST