# 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 | FULL STACK 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

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 Google API for natural language processing of tweets to determine the levels of emotion and interests.

#### TWITTER CHESS | https://github.com/DSchana/Twitter-Chess

U of T Hacks 2017

Chess bot on twitter built using Python

- Implemented the Tweepy/Twitter API to listen for game related requests.
- Hosted bot on an AWS server to allow for higher levels of up-time.

#### 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.

# **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