

# Dilpreet S. Chana

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## WORK EXPERIENCE

### **OPTIMOTIVE TECHNOLOGIES** | SOFTWARE DEVELOPER

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 based on a strict timeline and met all deadlines.

## EDUCATION

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

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

Major Average: 96.66

## PROJECTS

### **ARTEMIS GAME ENGINE** | [HTTPS://GITHUB.COM/ARTEMISENGINE/ARTEMIS-ENGINE](https://github.com/ArtemisEngine/Artemis-Engine)

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.

### **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.
- Utilized self learning pattern detection tools.
- Engineered custom **PCBs** and electrical systems to bypass the car's central computer.

### **TRON** | [HTTPS://GITHUB.COM/DSCHANA/TRON](https://github.com/DSchana/Tron)

September 2015 - June 2016

- Created 2D Tron game in **Java**.
- Implemented an intuitive wrapper for **Java FX** and **Swing** graphics libraries.
- Designed an **AI** to compete with a single player user.

### **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.

## EXTRA CURRICULAR

### **COMPUTER SCIENCE GAMES**

- Participated in the annual CS Games in 2017.
- Competed in challenges from various disciplines of computer science including **artificial intelligence** and **theoretical computer science**.

REFERENCES AVAILABLE UPON REQUEST