# Dilpreet Chana

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## EDUCATION

**UNIVERSITY OF WINDSOR** | Honours Computer Science with Security Specialization | Minor in Mathematics | Minor in Philosophy
2016 - 2021 | Windsor ON

- Mathematics and Computer Science **teaching assistant**
- Computer Science **research assistant** in **automotive security**

## WORK EXPERIENCE

**ELSE LABS** | Software Engineer
April 2021 - Present | Ottawa ON

- Generate new ideas and features for Else Labs' flag ship product; The **Oliver Smart Chef**
- Implemented IoT features on a truly full-stack scale using **C++** and **Particle** for firmware, **NodeJS** and **docker** for backend, and **React Native** for frontend

**AMAZON INC.** | Software Development Engineering Intern
May 2020 - August 2020 | Vancouver BC

- Designed and implemented new features for **AWS** including customer required features within **RDS** using **C++**
- Worked with a bureaucratic team of engineers and decision makers in a customer and data driven environment

**NANOLEAF** | Embedded Engineering Intern
January 2019 - August 2019 | Toronto ON

- Designed clean **software architecture** for the next generation of Nanoleaf's smart home devices using **C++** and **Python**
- Implemented custom methods to expose, among others, light bulb and touch features to **HomeKit** and the **OpenAPI**
- Designed tools to aid in the development of **Bluetooth mesh** systems

**ACID INTEGRATIONS** | Backend and Cloud Engineer
October 2018 - March 2020 | Remote

- Engineered custom **RESTful** APIs which are used internally by teams of engineers to develop medical applications
- Developed backend apps which manage medical information using tools such as **Node.JS** and **Django**
- Setup custom **cloud** infrastructure on custom **servers**

**OPTIMOTIVE TECHNOLOGIES** | CTO and Founding Partner
August 2016 - December 2018 | Windsor ON
A small startup I founded and established reputability for in the **computer vision** solutions sector for the **automotive industry**

- Created, from the ground up, several projects and toolchains using **C++** , **Python** , and **Node.JS**
- Led a development team of 4 to complete projects using **Scrum** development ideology
- Winner of the EPICenter accelerator best tech startup award out of 12 startups

## PROJECTS

**IRIS SELF DRIVING VEHICLE** | Self Driving Demo
The IRIS is a **level 2 self driving vehicle** capable of handling rough road conditions with impaired vision

- Developed using **C++** and **Python** with the **OpenCV** matrix library
- IRIS' autonomy was achieved using webcams as the only sensors and a **purely mathematical model**
- Integrated over a **distributed network** of embedded devices including an **Nvidia Jetson** , **Raspberry Pis** and custom **PCBs**

## COMPETITIONS

- **2018 - Hack The Valley** Winner of SAP's Best Demo/Pitch Award out of 79 teams, University of Toronto
- **2018 - CS Games** Placed 5th in the **AI** contest out of 25 teams