

## CONTACTS



cchandel@uwo.ca



Chandan/LinkedIn



Chandan/Website



226-700-4807



Chandan/Github



## SKILLS

## LANGUAGES

English

French

## PROGRAMMING LANGUAGES

Java

Python

C++

HTML5/CSS3/JavaScript

postgreSQL

MATLAB

# CHANDAN Chandel

## Education



**Masters in Software Engineering**  
Western University | Sept 2021—Present  
91% average at time of writing



**Bachelors in Electrical Engineering**  
Western University | Apr 2021 Graduate  
Dean's List & 3.4 GPA, final 2 years  
Engineering Student Council Representative

## Projects

### Machine Learning Facemask Detector | Python (TensorFlow)

Nov 2021 - Dec 2021

- Used pre-trained ModNet to remove irrelevant noise within each image within pre-processing phase of pipeline.
- Used various Convolutional Neural Networks as constituent models within an Ensemble Learning Paradigm.
- Assessed results using cross-validation on a Confusion Matrix with F1, Precision & Recall - final F1 score of 0.86.

### Stock Price Data Visualizer | HTML, CSS, JavaScript (Node.js, D3)

Nov 2021 - Dec 2021

- Developed beautiful and interactive stock price data visualizer using D3 library.
- Used server to determine which stock data to deliver to any client.

### Tic Tac Toe Android App | Android Studios (Java, XML), Firebase

Aug 2021 - Aug 2021

- Developed visually appealing layout in Android Studios (XML).
- Programmed game logic in Android Studios (Java)

### Rocket Airbrake Control System Capstone Project | MATLAB, Simulink, C++

Sep 2020 - Apr 2021

- Develop PID control algorithms for airbrake angle using Smith Predictor and Kalman filter in SIMULINK.
- Program Raspberry Pi processor and STM32F1 microcontroller to communicate on CAN bus, sensors used I2C.
- Complete power calculations and parts selection (power, comms, processing) to operate within spec.

### Stock Data Web scraper and Alert System | Python

Dec 2020 - Dec 2020

- Grab real time & historic prices from Yahoo Finance website of pre-specified list of tickers (Selenium).
- Establish supports and ceilings using web scraper data for break out strategies.
- Provide alert over SMS for user with appropriate notification to complete the trade (TextMagic API).

## Experience

### Intern (Software Development) @Ansys - EMIT Team | Waterloo, ON / Remote Jan 2022 - Apr 2022

- Learn and employ the best software practices in Python, including design and code review.
- Develop and automate unit and regression tests.
- Advance the research of numerical algorithms and high-performance computational software.

### Robotics & Controls Specialist @JMP Solutions - Robotics Division | London, ON May 2021 - Aug 2021

- Program and test PLC's, robots, and vision systems for JMP's custom automation equipment.
- Exercise Project Management skills through risk planning, scheduling, and supporting customers.

### Electrical Design Intern @Honda Manufacturing | Alliston, ON

May 2019 - Aug 2020

- Program Mitsubishi/Omron/Rockwell PLC's, HMI's, Fanuc Robots, and Cognex iR Vision Systems.
- Lay out new industrial electrical control, and create appropriate electrical schematics.
- Designed multiple plant changes to save 66000 CAD/year outside of regular duties (Kaizen).

### Engineering Research Assistant @Western University | London, ON

May 2018 - Sep 2018

- Goal: Develop saliva melatonin concentration measurement solution for portable applications.
- Design multiple PCB's, create and update components of library in Eagle, select components and microcontroller
- Generate code for PIC microcontroller in C, debug and test using Arduino and C++.

### Programming Tutor @Real Programming 4 Kids | London, ON

Mar 2018 - Sep 2018

- Tutor students in Java, C#, C++, Python, VB and Unity through game development.
- Troubleshooting errors for students and instructing them in better programming practices

### Business Research Assistant @Nokee Kwe | London, ON

Jun 2017 - Aug 2017

Goal: Improve throughput rate of non-profit employment/education services.

- Understand ideal business model and day-to-day real business practices.
- Identify KPI's to highlight areas that could use improvement, highlight inefficiencies in business practices.

## Extracurricular Activities

### Undergraduate Engineering Student Council, ECE Student Body Representative Sep 2017 - Apr 2018

- Act as spokesperson for any concerns of an academic nature that affect my constituents.
- Maintain up to date knowledge on any motions being discussed and vote on behalf of student body.

### Sunstangs Solar Car Project, Low Power Systems Team Member

Sep 2018 - Mar 2019

- Design, build and test multiple PCB's in Eagle for sub-systems throughout the vehicle.
- Upgrading communications to CAN bus system to provide noise resistant onboard communications, created test scripts to validate functionality.

### Western Investing Club, Club Member

Jan 2021 - Apr 2021

- Participate in workshop sessions and create research product focused on London real-estate market to present
- Share and absorb information about navigating the world of equities, bonds, real estate, and other assets as part of a broader asset management strategy.