CONTACTS

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in Chandan/LinkedIn

🌐 Chandan/Website

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○ Chandan/Github

☆ **SKILLS**

<u>LANGUAGES</u>

English

French

<u>PROGRAMMING LANGUAGES</u>

Java

Python

C++

HTML5/CSS

JavaScript (React.js, Node.js)

PostgreSQL

MATLAB

CHANDAN Chandel

Education

Masters in Software Engineering
Western University | Sept 2021—Present
4.0 GPA

Bachelors in Electrical Engineering
Western University | Apr 2021 Graduate
Dean's List & 3.5 GPA, final 2 years
Engineering Student Council Representative

Work Experience

Intern (Software Dev) @Ansys - EMIT Team| Waterloo, ON / Remote   Jan 2022 - Apr 2022
- Learn and employ the best software practices in Python/C++, 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).

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.

Projects

Resume Website | JavaScript, HTML, CSS   January 2022
- Used BootStrap to add tools such as a timeline and carousel to webpage to improve user experience.
- Hosted on Heroku, available at https://cchandel-simple-resume-app.herokuapp.com/

M/L Facemask Detector | Python   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 Confusion Matrix and F1 score (0.91).

M/L Fetal Health Classifier | Python   November 2021 .
- Used a deep neural network along with multiple traditional machinery learning algorithms such as SVM, Decision Trees, Random Forest, KNN &Naive Bayes, as constituent models within an Ensemble Learning Paradigm.
- Assessed results using Confusion Matrix and F1 score (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 and used a server to determine which stock data to deliver to any client.

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   December 2020
- Grab stock price data from Yahoo Finance website and establish supports and ceilings (Beautiful Soup).
- Provide alert over SMS for user with appropriate notification when the support or ceiling has been broken (TextMagic API).

Extracurricular/Volunteer Activities

Ansys Hacks @Ansys , **Hackathon attendee**   March 2, 2022
- Will work with a team of co-workers at a company Hackathon, in advanced programming challenges, working primarily in Python , but may include C++.
- See website for updates on this Hackathon!!!

Sunstangs Solar Car Project @Western University, **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.

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++.

Undergraduate Engineering Student Council @Western University, **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.