



SKILLS

LANGUAGES

English
French

PROGRAMMING LANGUAGES

Java
Python
C++
MATLAB

Development Tools

Eclipse
Visual Studio
Git/Github

NETWORKING

Wireshark

AUTOMATION TECHNOLOGIES

Allen-Bradley PLC's
FactoryTalk HMI
Fanuc Robots

SIMULATION AND DESIGN

MATLAB/Simulink
AutoCAD Electrical
Eagle CAD

CONTACTS



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Chandan/LinkedIn



Chandan/Github



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CHANDAN Chandel

Education



Masters in Software Engineering (ECE)
Western University | Sept 2021—Present



Bachelors in Electrical Engineering (ECE)
Western University | 2021 Graduate
Dean's List | 3.4 GPA final 2 years

Experience

Electronics Simulation Research and Development Intern

Starting in Jan 2022 - April 2022

Anslys—EMIT Team | Waterloo, ON / Remote

- Learn and employ the best software practices 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

May 2021 - Aug 2021

JMP Solutions—Automation & Robotics Division | London, ON

- Program Allen-Bradley PLC's, Fanuc robots, HMI's for custom automation equipment.
- Develop Project Management skills through risk planning, scheduling, and supporting customers.
- Develop code that is organized & interacts with subsystems such as HMI's, conveyors, robots and 3rd party equipment.
- Design aesthetic HMI screens for complex machinery providing feedback for troubleshooting.

Electrical Design Intern

May 2019 - Aug 2020

Honda Engineering Group North America | Alliston, ON

- Lead Electrical Designer for multiple automation projects (see [internship report](#) tab).
- Program Mitsubishi/Omron/Rockwell PLC's, HMI's, Fanuc Robots and Cognex /iR Vision Systems .
- Designed multiple plant changes to save 66000 CAD/year outside of regular duties (Kaizen).
- Lay out new industrial electrical control and create electrical appropriate electrical schematics

Engineering Research Assistant

May 2018 - Sep 2018

Western University | London, ON

Goal: Develop saliva melatonin concentration measurement solution for portable applications.

- Assist in electro-chemistry research and understand underlying principles.
- 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

Mar 2018 - Sep 2018

Real Programming 4 Kids | London, ON

- Tutor students in Java, C#, C++, Python, VB and Unity.
- Troubleshooting errors for students and instructing them in better programming practices to avoid making similar mistakes.

Business Research Assistant

Jun 2017 - Aug 2017

Nokee Kwe | London, ON

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

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

Projects

Fetal Health Predictor | Python

October 2021

- Tested various Machine Learning classification algorithms (Random Forest, Decision Tree, KNN, SVM, Naive Bayes).
- Verified results using hold-out and cross-validation, achieving max accuracy of 0.86 with Random Forest under cross-validation.

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 microprocessor and STM32F1 microcontroller to communicate through CAN bus, sensors used I2C.
- Complete power calculations and parts selection (power, comms, processing) to operate within spec including safety factors.

Stock Data Web Scraper and Alert System | Python

Sep 2020 - Dec 2020

- Grab real time & historic prices from Yahoo Finance website of pre-specified list of tickers (Selenium).
- Provide alert over SMS to user in case of breakout to complete the trade (TextMagic).

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

Aug 2021 - Aug 2021

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

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 social media presence to communicate with constituents.
- Maintain up to date knowledge on any motions being discussed and vote on behalf of second year ECE 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 to the club.
- Share and absorb information about navigating the world of equities, bonds, real estate and other assets as part of a broader asset management strategy.