

Joshua Green

Electrical Engineer

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Education


Ph.D.

*Electrical Engineering
Communication Systems and
Data Networking*

Network Security

Western University

 Sept 2021 - Aug 2026


 London, ON.


B.E.Sc

Electrical Engineering

Wireless Communication

Western University

 Sept 2016 - Apr 2021

 London, ON.

Skills

- **OOP Programming**
 - (C++, Python, MATLAB)
- **Python: Machine Learning**
 - (Pandas, Keras, TensorFlow, Numpy, more)
- **Other Programming**
 - (C, Assesmbly, Arduino)
- **Markup/Styling**
 - (Latex, HTML, CSS, XML)
- **Source Control**
 - (git)
- **Scripting**
 - (Linux, Bash)
- **PCB Circuit Design**
 - (Microcap, EAGLE, Soldering)
- **Allen Bradley PLC programming**
 - (FactoryTalk, DNET, RSLogix, RSLinx)
- **Engineering tools**
 - (AutoCAD, QuartusII, SOLIDWORKS)
- **Welding**
 - (MIG, Stick, Oxy-Acetylene)
- **Manufacturing**
 - (Lathe, Machining, Plasma-cutting)

Publications and Awards


- IEEE PIMRC Conference Paper Publication:
"Shared Experiential History for Encryption Based
Peer-To-Peer Authentication"
- 2023 Graduate Symposium Outstanding Presentation in
Communication Systems Engineering
- Dean's List Honoree 2017-2018

Projects

- Lung disease classification using CNN and Transfer learning
- Capstone: Smart cane elderly alert system
 - Capstone role: GPS data polling, data formatting,
SMS message formatting, send SMS to contacts
- Project 2: Welder Power Supply with PID
- Project 1: Student card automatic door access


Work Experience

Graduate Research and Teaching Assistant

Western University - London, ON  Sept 2021 - Current

- Drive pioneering research in wireless network security.
- Engineer novel methods for Authentication and Trust Assessment
- Monitor and mark labs, midterm and final exams, and assignments
for the following courses:
 - [ECE4416/4415 \(ECE Design Project Course\)](#)
 - Guide students through their final engineering project.
 - [ECE3331B \(Introduction to Signal Processing\)](#)
 - Course is heavily reliant on MATLAB and Simulink.
 - [ECE4436A \(Networking: Principles, Protocols and Architectures\)](#)
 - Linux · Socket Programming · Virtual Machines · Python
 - [ECE2236B \(Magnetic Circuits and Transmission Lines\)](#)
 - Electromagnetic Theory

Electrical Engineering Intern (Controls)

General Motors - Ingersoll, ON  May 2019 - May 2020

- Create original PLC program solutions using Allen Bradley PLC
Software (Factory Talk, DNET, RSLogix, RSLinx),
- Departmental DNET backup during the plant shutdown down due
to first covid-19 wave,
- Update electrical drawings in AutoCAD and document the changes
in the company database,
- Cross-functional teamwork at a large scale,
- Quality defect isolation and solutions,
- Project Management (PM delegation, SAP ordering, supervising
engineering projects).
- Upholding Ontario Electrical Safety Code (OESC).
- Update company database for: Lockout Zones/Tags, Safety zones,
PLC programs, DNET.