

Highlights

- Over 12 years of project experience in software design, production and testing.
- Currently researching pattern of life extraction algorithms at the Estimation Tracking and Fusion Lab.
- 3 years of industry experience at multinational defense companies.

Education

Master of Applied Science, Electrical and Computer Engineering **expected completion 2021**
McMaster University, Hamilton, ON

- Studied Estimation Tracking and Fusion (ETF) Lab under Dr. T. Kirubarajan.
- Researched pattern of life extraction and anomaly detection algorithms using Machine Learning.
- Relevant courses: State Estimation (Kalman Filter), Optimization, Multitarget Tracking & Sensor Fusion

Bachelor of Engineering and Management, Mechatronics **Class of 2018**
McMaster University, Hamilton, ON

- Relevant courses: Software Requirements Engineering, Robotics, Product Development

Work Experience

L3Harris WESCAM **Algorithm Developer** **2020-2021**

- Assisted WESCAM's Independent Stabilized Sighting Systems (MX-GCS) team develop new features for upcoming electro-optic and infrared vision system offerings.
- Reduced time spent gathering field imagery by developing radiometrically realistic synthetic data generator to create pseudo-realistic scenes.
- Developed core target detection algorithm using computer vision, machine learning, and pixel-wise image processing.

General Dynamics Mission Systems **COOP Student** **April 2019**

- Assisted GDMS's Block 3 team on the maritime patrol aircraft (CP-140 Aurora) project.
- Developed a dashboard to relay automated test results and sprint summary to the team.
- Researched and implemented data interpolation algorithm to reduce bandwidth usage.
- Wrote automated test to verify Laser Range Finder (LRF) altitude measurements from the MX-20 using Robot Framework and Python.

McMaster University **Research Assistant** **April 2018**

- Assisted in the development of multi-sensor data fusion platform for the ETF Lab.
- Developed a NoSQL Database using MongoDB and Node.JS.

THALES Canada **Software Analyst Intern** **2016 – 2017**

- Assisted in development of THALES' ambition project to reduce system testing time by over 80%.
- Debugged C++ based full system regression testing software.
- Implemented Jenkins and SonarQube for automated code check for software teams.
- Implemented standards for hardware configurations to run the appropriate software.
- Developed the front end and back end of a web-based tool to provide a user-friendly interface for automated tests.

Software Skills

Pascal	Node.JS	DOORS	MATLAB
Python	MongoDB	ClearCase	Simulink
C, C++	TensorFlow	ClearQuest	NI MultiSim
Java		Jenkins	LabVIEW
NASM Assembly	Kinetic ROS	SonarQube	

Projects

Hyperloop	QuadSim
EcoCAR3	Hack IT MAC
Formula Hybrid	Home Redesign
SumoBot	Quadcopter CAD
Strangers (app)	FIRST Robotics