

# Amos Hebb

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## EDUCATION

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### University of Toronto

*Master of Applied Science in Computer Engineering (In Progress)*

Toronto, Ontario

Sep 2022 - Sep 2024

### Royal Military College

*Bachelor of Engineering in Computer Engineering*

Kingston, Ontario

Aug 2015 - May 2019

## EXPERIENCE

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### Senior Consultant

*Deloitte - OmniaAI*

Dec 2021 - Sep 2022

Toronto, Ontario

- Senior Dev - Health Canada Proof of Vax "Issuer in a Box" - with 6 Jr Devs maintained and expanded functionality of certificate generator API. (Node, TypeScript)
- Data Engineering - IMCO Cyber Dashboard (SQL, Python)
- Data Engineering - PSPC Real Property Optimization (Gurobi, Python)

### Data Scientist

*HSBC Global Banking & Markets*

Jul 2019 - Dec 2021

Toronto, Ontario

- Regressions on PB Scale Tabuar Data (PySpark, Python)
- Chained Binary Classifiers and SHAP (PySpark, Python)
- Graph Based Record Linkage (Spark, GraphX)
- Lead Internship to develop Named Entity Recognition model (SparkNLP)
- Refactored Excel + Python ETL pipeline to PB Scale (Hadoop, Spark, Scala)

### Aerospace Engineering Officer

*Royal Canadian Air Force*

Jun 2015 - Jul 2019

Greenwood, Nova Scotia

- Concurrent with role as Officer Cadet at Royal Military College
- Deployment to far north on Operation Nanook 2018 with 405 Long Range Patrol Squadron
- 1st line maintenance training with 14 Air Maintenance Squadron
- Search and Rescue training with 413 Transport and Rescue Squadron

## PROJECTS

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### Belief-Reward Radar Policies | *Reinforcement Learning, Julia*

Dec 2023 - May 2024

- Developed POMDPs simulation of a radar system
- Implemented particle filter multi-target tracking algorithm
- Developed and trained Belief-MCTS solver for POMDPs
- Abstract accepted to IEEE RadarConf24

### RL for Multi-task Radar Scheduling | *Gym, Python*

Sep 2023 - Dec 2023

- Developed Gymnasium simulation of task queue system
- Refactored MATLAB algorithms to Python
- Trained basic RL algorithms on gym environment

### Depth from Mono Capstone | *ROS, OpenCV, SLAM*

Aug 2018 - Jun 2019

- Capstone project for undergrad
- ROS based turtlebot
- Trained CNN to estimate LIDAR depth from camera

## TECHNICAL SKILLS

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**Bilingual:** Native English, CBC French

**Programming:** Python, Julia, TypeScript, and toy with Go, Rust

**Robots:** ROS, ArduPilot, Donkey Car

**Cameras:** Photographer, First Job was Photo Lab Tech