James Ross

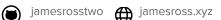jamesrosstwo   jamesross.xyz   jamesrosstwo   james@jamesross.xyz   (647)-229-0035

EXPERIENCE

RBC, Toronto, ON - *Data Scientist, Co-op Student*   May - Aug. 2020, Jan. 2021 - Present

- Developed a graph-based solution to detect clusters of synthetic accounts used for fraud within RBC. The approach was able to detect known synthetic accounts and discover new, previously unseen synthetic accounts.
- The new graph-based solution is able to discover clusters of synthetic accounts automatically and proactively, as opposed to the previous reactive method of discovery.

IBM, Markham, ON - *Software Development Intern*   July - Aug. 2018, 2019

- Worked on a team of 20 to build the IBM Developer Skills Network, a cloud-based platform that enables organizations to deploy customizable data science education portals.
- Improved user experience by adding administrative tools, challenge functionality and upgrading portals' chatbots for users.
- Developed a structure to maintain an up to date version of OpenEdX on portals

PROJECTS

BEAR UBC, Vancouver, BC - *Software Team Lead*   Sept. 2019 - Present
www.bearubc.com

- Leading a sub-team of six to develop software for GRASP, a prosthetic hand controlled with electromyography that will compete in ETH Zurich's Cybathlon 2021.
- Designing software for GRASP's STM32 board utilizing machine learning to classify held objects. Improved the accuracy of the classifier to 98%.
- Developing solutions to learn human-like grasps on objects for the prosthetic hand through reinforcement learning.

UBC RoboMaster, Vancouver, BC - *Technology Lead*   Sept. 2019 - Present

- Developing software with a team of 20 to deploy onto a series of robots that will compete in DJI's Robomaster 2021. Designed the structure of the solution to DJI's AI challenge, beginning to develop a Reinforcement Learning algorithm to choose strategies for the robots.
- Implemented a Tensorflow model to detect panels on other robots in real time with >90% accuracy. Developed an algorithm to track panels and differentiate other robots.

EDUCATION

University of British Columbia, Vancouver, BC   Sept. 2019 - May 2024
Faculty of Science, Year 2, Computer Science Major (Co-op)

- Overall Average: A, Dean's Honour List
- Tuum Est Experiential Award, $3500 entry scholarship

SKILLS

Proficient in Python, Pytorch, Ruby, React, Javascript, C#, Java, Arduino, Docker, Git