

# James Ross

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## EXPERIENCE

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

- Developed a graph-based solution using networkx and pyspark 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.
- Working to enrich a Neo4J graph database to make more accurate inferences using existing data and developing a model to identify important areas of the graph.

**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 the analytics team for GRASP, a prosthetic hand controlled with electromyography with plans to compete in ETH Zurich's Cybathlon 2021.
- Developing solutions such
- 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. I designed the structure of the solution to DJI's AI challenge and am currently developing a reinforcement-learning algorithm to help the robots choose where to move and aim.

## 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, Spark, React, Javascript, Java, C++, Git