

# Graydon Hope

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## EDUCATION

UNIVERSITY OF OTTAWA – BAsC HONOURS COMPUTER SCIENCE AND DATA SCIENCE (9/10 GPA)

- \$16,000 awarded in scholarships for academic merit (Dean's honor list) and international research in Germany.

## SKILLS

Python	Java	Docker	Machine Learning	Agile
Git	SQL	Data Modeling	Databases	Unix/Linux

## EXPERIENCE

MORGAN STANLEY – INCOMING FULL-TIME TECHNOLOGY ANALYST (NEW YORK CITY)

FEBRUARY 2022

MORGAN STANLEY – MACHINE LEARNING ENGINEER + AI RESEARCHER INTERN

MAY 2021 - CURRENT

- Accelerated MBS investments project by implementing data pipeline and custom algorithms to solve combinatorial optimization problem after initiating collaboration with Ph.D researchers and financial traders.
- Developed firmwide used ML competition website using Python Flask and HTML/CSS.
- Adapted open source software to run in firm by separating out microservices into Docker containers using build scripts.

KINAXIS – MACHINE LEARNING SOFTWARE DEVELOPER INTERN

JANUARY - APRIL 2021

- Provided an interface that gives customers 4x more tailored solutions by extending Python codebase.
- Reduced time to produce solutions by decreasing search space from  $10^{84}$  combinations to  $10^5$  by implementing genetic algorithm in Python.

ROYAL BANK OF CANADA – DATA SCIENCE INTERN

MAY - AUGUST 2020

- Trained a neural network to forecast the optimal utilization window for 10,000 servers cutting costs by \$336,000 yearly.
- Reduced running time from 7 hours down to 6 minutes by multithreading and removing bottleneck from API endpoint saving hours of server usage everyday.
- Analyzed data and discovered 390 idle servers using less than 5% of their capacity. Presented findings to Application team which resulted in saving \$27,000 monthly after retiring these servers.

NATIONAL LOGISTICS SERVICES – MOBILE DEVELOPER INTERN

SEPTEMBER - DECEMBER 2019

- Increased productivity for over 1,500 workers by collaborating with back-end team to migrate antiquated user interface to iPad application developed in React Native.

ZEMA – SOFTWARE DEVELOPER INTERN (GERMANY)

JANUARY - MAY 2019

- Automated the secure transmission of sensor data and overcame compatibility issues by integrating a hardware device in C++ with a machine connectivity protocol using a Python-Django hashing program saving hours of manual labor.

## PROJECTS

- Deployed Every Body Fit to Apple and Google stores maintaining click-through download rate of 33% (15% higher than other fitness apps) after creating using React Native.
- Wrote AI for cyber security research paper on phishing detection after implementing detection system in Python.