Toronto, ON

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Ron Hu

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Web CV

Experience

Software Engineer, Intern	**Amazon Web Services**	**May 2022 - Aug. 2022**

Kinesis Data Streams

- Reduced 10 hours of weekly effort to remove faulty backend hosts distributed to five workers to 2 hour for one worker by automating faulty hostsets detection in Python using internal data metrics. Resulted in 45% reduction of faulty hosts tickets weekly due to higher quality and faster detection
- Created Python scripts to automatically generate capacity reports for the team to make data-driven decisions on reserving future capacity
- Built various Python scripts to further automate the on-call experience

Software Developer, Research	**Centivizer**	**Dec. 2021 - Feb. 2022**

4VRYoung

- Discussed the design and implementation the software architecture with NodeJS and REST API for 2Race-WithMe, an interactive game controlled using a foot pedal for older adults with Alzheimer's to exercise
- Implemented code to further increase 4VRYoung's (VR version of 2RaceWithMe) VR video library in Unity

Data Analyst, Intern	**Royal Bank of Canada**	**May 2021 - May 2022**

Home Equity Finance

- Made a +$300MM total annual balance impact by detecting a list of 5k+ clients with attrition-like behaviour monthly from internal RBC mortgage and external credit bureau data - **won quarterly Home Equity Finance "Made A Difference" performance award**
- Develop dynamic and efficient Teradata SQL queries to retrieve mortgage transactional data for in-house and ad-hoc requests
- Automated data gathering for monthly report from OSFI website by building a Python web scrapping script
- Built auto-refreshing Tableau dashboards reporting insights from monthly incoming data
- Implemented a forecasting model to predict daily number of incoming mortgage applications in a two week period

Education

Toronto, ON	**University of Toronto**	**Graduating: May 2023**

- Bachelor of Applied Science and Engineering in Computer Engineering
- Coursework: Algorithms & Data Structures; Operating Systems; Databases; Introduction to Machine Learning; Computer Architecture; Engineering Entrepreneurship; Calculus III

Technical Experience

Projects

- **Geographical Information System:** A GIS that is able to search for intersections or points of interests and calculate the shortest route between two intersections for up to 20 different cities in the world. C++, ezgl
- **MyMessages:** MyMessages is a blog web application that features similar functions as Facebook posts to help user to post, edit and delete posts with pictures. Node.js, ExpressJS, Angular, MongoDB
- **House Number Image Inpainting:** Uses machine learning to repair images of house numbers through a technique called image inpainting. pyTorch, Pandas

Languages and Technologies

- **Programming:** Python, Java, SQL, C, C++, HTML, CSS, git
- **Full-stack:** Spring Boot, MongoDB, ExpressJS, Angular, NodeJS, Flask
- **Data:** Pandas, Matplotlib, NumPy,Tableau, Excel, SAS, Jupyter Notebook