Hope Hadfield

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EDUCATION

University of Toronto   Toronto, ON
4th Year - BASc in Computer Engineering, Minor in Artificial Intelligence   *Sep. 2020 – June 2025*
- **3.9**/4.0 GPA, **90%** cumulative average

EXPERIENCE

Red Hat - Software Engineering Intern, 16 months   May 2023 – Aug. 2024
IDE Extensions   *Toronto, ON*
- Implemented "Go to Declaration" feature in the **VS Code Java plug-in**, with 37M+ downloads
- Designed and implemented feature allowing users to paste Java code in file explorer to automatically create file in VS Code using **Java** and **Typescript**
- Drove initiative with Microsoft engineers to migrate and improve Java syntax highlighting in VS Code central repository
- Planned and developed a customer-facing website that provides documentation and updates on Red Hat's IDE extensions using **React** and **agile development methodologies**

TELUS - Software Engineering Intern, 4 months   May 2022 – Aug. 2022
Fraud Analytics   *Toronto, ON*
- Made improvements to fraud metric dashboard for directors and VPs, including an **80% latency reduction**, using **SQL**, **Pandas**, and **Google Data Studio**
- Collected, cleaned, and analyzed data pertaining to fraud rate, highlighting an unidentified weak spot in one distribution channel
- Produced bi-weekly automated visual report for managers examining the productivity of team analysts

TELUS - Software Engineering Intern, 4 months   May 2021 – Aug. 2021
Fleet Management   *Toronto, ON*
- Created automated, personalized monthly mail-outs for over 200 fleet managers, leading to estimated **savings of over $18,000** annually and 65 employee hours monthly, using **HTML** and **SQL**
- Developed escalation process for stale vehicle replacements/returns, including automated weekly reminder emails which addressed over **$500,000 in potential savings**

PROJECTS

AI Emotion Detection Program   2023
- Produced a model that could detect one of six emotions given an image of a human face using **Python** (including **PyTorch** and **NumPy**)
- Developed, trained, and finetuned a convolutional neural network resembling AlexNet
- Could identify a happy face with 80.5% accuracy

GPS Mapping Software – 1st of 100 teams   2022
- Created a navigation system with a GUI using **C++** along with various APIs (EZGL, OSM), gaining experience in source control with **Git**
- Produced fastest solution to a variant of the Travelling Salesman problem using greedy algorithm, genetic algorithm, 3-opt, and multithreading

TECHNICAL SKILLS

Languages: Java, Python, C/C++, Typescript, SQL, HTML/CSS, React, Bash, Verilog, Assembly
Developer Tools: Git, VS Code, IntelliJ, Eclipse
Libraries: Pandas, Pytorch, NumPy, Matplotlib

EXTRACURRICULARS

2x Indoor Skydiving World Championship medalist, avid canoe camper, bass guitar player