SABRINA HIRANI

/in/sabrina-hirani | @sabrinahirani | sabrinahirani@gmail.com

SKILLS

Languages:	Python, Java, C++, C, Javascript, Typescript, Go, Rust, SQL, R, Solidity
Technologies:	React.js, Express.js, React-Native, Flask, MySQL, PostgreSQL, Docker
Data Science:	Pytorch, Tensorflow, NumPy, Pandas, HuggingFace, LangChain, LlamaIndex
Blockchain:	Hardhat, Ethers.js, Chainlink, The Graph, OpenZepplin, Solmate, Circom, Snark.js

EDUCATION

9/2022 - 6/2026   **University of Toronto**
BSc. Computer Science

- *Major: Computer Science, Minor: Statistics, Economics*
- Relevant Courses: Microeconomic Theory, Principles of Microeconomics, Principles of Macroeconomics, Probability and Statistics, Applied Statistics, Multivariate Calculus, Linear Algebra

```
GPA: 3.8
```

EXPERIENCE

5/2024 – PRESENT   **Finance Process Transformations Intern**
Royal Bank of Canada

- Led the development of multiple tax automation processes, using Robotics Process Automation (RPA) tools such as Blue Prism and VBA, to deliver a streamlined accounting workflow, saving an estimated 1000+ hours of manpower
- Learned about numerous financial processes within RBC in accounting, product control, etc.

```
Robotic Process Automations  /  Python  /  SQL  /  Blue Prism  /  VBA  /  Excel
```

5/2023 – 8/2023   **Machine Learning Intern**
CDTx @ University Health Network

- Programmed a virtual heart failure assistant by prompting and finetuning GPT models and HuggingFace models (Llama, Llama2, WizardLM, Falcon, Vicuna) using LlamaIndex, LangChain, HuggingFace to aid heart failure patients in managing their condition
- Performed web scraping using Selenium to develop a heart failure training data corpus

```
Pytorch  /  HuggingFace  /  LangChain  /  LlamaIndex  /  Selenium
```

7/2022   **Technology and Operations Intern**
Ewings LLC

- Gained a comprehensive overview of how different aspects of a business come together by shadowing customer service, marketing, public relations and communications, human resources, sales, and IT
- Learned about enterprise resource planning (MS FO and MS CRM), learned about development environments (MS LCS), learned about servers, hardware, the cloud

11/2019   **Consultant**
Sidewalk Labs @ Google X

- Conducted a root-cause analysis of Toronto's housing crisis to develop a proposal to reduce construction costs by almost 5% with the use of generative design technology

AWARDS

- * The DaVinci Competition 2023, *Winner of Web 3.0 Category*
- * SF Hacks 2021, *Winner*
- * Hack to the Future 2022, *Finalist*
- * Global Challenge 2020, *Finalist*

PROJECTS

03/2024   **Crypto Trading Agent**   **github.com/sabrinahirani/Crypto-Trading-Agent**
- Programmed reinforcement learning agents, using Q learning strategies, policy gradient strategies, and actor-critic strategies, to learn a policy to maximize returns on a portfolio of popular cryptocurrencies
- Programmed a LSTM for price prediction (with the intention to explore model-based reinforcement learning techniques)

```
Pytorch  /  Pandas  /  NumPy  /  Matplotlib  /  OpenAI Gym
```

06/2024   **Gradient Finance**   **github.com/sabrinahirani/Gradient-Finance**
- Programmed a synthetic asset protocol for investing in equities in the decentralized finance (DeFi) ecosystem
- Programmed a decentralized exchange (DEX) with an automated market maker for trading synthetic assets
- Tokenized vaults, price oracles, liquidity pools, and lots of tokens

```
Solidity  /  Chainlink  /  OpenZepplin  /  Solmate  /  Solady
```

03/2022   **ASKR**   **devpost.com/software/askr-8ywa76**
- Devised a decentralized lending protocol to introduce the idea of collateralized debt obligations (CDO) to the decentralized finance (DeFi) ecosystem
- Top 10 Finalist of Hack to the Future 2022

```
Analytical Thinking  /  Problem Solving  /  Passion  /  Love
```

Dual Citizen of Canada and USA