




# SABRINA HIRANI

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## 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, OpenZeppelin, Solmate, Circom, Snark.js

## EDUCATION

- 9/2022 - 6/2026 **University of Toronto**  
BSc. Computer Science
- *Major: Computer Science, Minor: Statistics, Economics*
  - Relevant Courses: Software Design, Data Structures and Analysis, Systems Programming
  - Director of Blockchain at Web3 @ UofT
- 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 500+ hours of manpower per year
- 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
- 9/2020 – 1/2021 **Blockchain and Software Engineering Intern**  
ZorroSign
- Programmed a microservice to save user data to a corporate blockchain using Express.js, Node.js, MySQL, Hyperledger Fabric Go
- Hyperledger Fabric Go / Express.js / MySQL / SQL
- 3/2020 – 8/2020 **Web Development Intern**  
CryptoChicks
- Redesigned cryptochicks.ca and cryptochicksacademy.com

## 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

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12/2023	<b>Oasis Relief Fund</b> <ul style="list-style-type: none"><li>Performed requests to PredictHQ Event API from a smart contract using the Chainlink network</li><li>Programmed an external adapter for bridging an external service to the Chainlink network</li><li>Programmed a crowdfunding smart contract</li></ul> Solidity / Chainlink / Express.js / Docker	<a href="https://github.com/lakhwani/oasis">github.com/lakhwani/oasis</a>
06/2024	<b>Gradient Finance</b> <ul style="list-style-type: none"><li>Programmed a synthetic asset protocol for investing in equities in the decentralized finance (DeFi) ecosystem</li><li>Programmed a decentralized exchange (DEX) with an automated market maker for trading synthetic assets</li><li>Tokenized vaults, price oracles, liquidity pools, and lots of tokens</li></ul> Solidity / Chainlink / OpenZeppelin / Solmate / Solady	<a href="https://github.com/sabrinahirani/Gradient-Finance">github.com/sabrinahirani/Gradient-Finance</a>
03/2024	<b>Crypto Trading Agent</b> <ul style="list-style-type: none"><li>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</li><li>Programmed a LSTM for price prediction (with the intention to explore model-based reinforcement learning techniques)</li></ul> Pytorch / Pandas / NumPy / Matplotlib / OpenAI Gym	<a href="https://github.com/sabrinahirani/Crypto-Trading-Agent">github.com/sabrinahirani/Crypto-Trading-Agent</a>

Dual Citizen of Canada and USA