Dron Hazra

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Education

University of Cambridge: Computer Science

Selwyn College | October 2022 - Present

Year 1: First class. Perfect scores in Discrete Math and Foundations of Computer Science.
Intro Fellowship Co-Lead for Cambridge AI Safety Hub (CAISH)

Summer Programs

Summer Program for Applied Rationality and Cognition (SPARC) 2023
Quantum Cryptography School for Young Students (QCSYS) 2021
Canadian Mathematical Society Math Camp (Invitational) 2020

Experience

Software Engineer Intern: Zilliqa

Summer 2023

- Built **Persistence Data Transformer** (PDT), a robust and concurrent ingestion + indexing system for sharded blockchain persistence archives using Rust, PostgreSQL and BigQuery
- Worked on transaction replay and tracing for Zilliqa 2.0, laying foundation for stateful blockchain time travel
- Helped implement Ethereum Virtual Machine APIs for cross-chain interoperability

Student Fellow: X, the moonshot factory

July 2022

- Prototyped and pitched a new moonshot solving outdoor air pollution to X leadership
- Achieved 25% reduction in concentration of <2.5-micron particles without any filters

Engineering Intern: Talk Social (now Camp Social)

Summer 2021

- Proposed and built features pre-MVP using React and Rails
- Implemented automated room recording for easier user testing
- Led and executed a production codebase-level state management refactor

Research

Research in Adversarial Robustness [WIP]

Winter 2022 - Present

- Work done under Max Kaufmann and Dan Hendrycks

Awards

2023 Polaris Fellow (sponsored by Entrepreneur First)
2022 HackX 3rd place + best technical skill (for Project Headlights)
2022 Canadian Computing Competition Honour Roll (top 2% nationally)
2021 Canadian Mathematical Olympiad Qualifier (Top 50 in Canada)

Skills

Python (PyTorch, JAX, numpy, matplotlib, pandas):
- Training a Deep-Q-Network to play Pong (blog post)

Javascript/Typescript + React (Next.js, Material-UI, tailwind):
- Maintainer of Updately (code)
- AI-assisted ear training with Intellear

Other languages: Rust, SQL, OCaml, C++, Java, Ruby (Rails), Perl, Dart
Tools/Frameworks: Git, sqlx, Google Cloud, PostgreSQL, Flutter, MongoDB, Linux, Docker