Aditya Rajeev   (U.S. Citizen)

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Seeking a challenging internship that gives me exposure to cutting-edge industrial software development.

Experience

Research Assistant | Vector Institute and University Health Network   **April 2024 – Present**

- Working with Prof. Michael Brudno (University of Toronto)
- Engineered image segmentation software to annotate over 2000 images for training with PyTorch
- Developed AI models capable of detecting/segmenting tubes in X-rays with **over 85% accuracy**
- Employed **generative AI techniques** to in-paint segmented areas, removing tubes from images
- Honored to be the first undergraduate student to contribute to this lab

Researcher | Pioneer Academics   **May 2022 – September 2022**

- Worked with Prof. Anthony Hoffman (University of Notre Dame)
- Did independent research on the effects of quantum gate error on machine learning models
- Described by Professor Hoffman as "**in the top three of undergraduate students** that I have had in class or supervised in my research" (Full evaluation here: https://bit.ly/PioneerEvaluate)
- Paper and code available here: https://github.com/Steelcrawler/PioneerResearchCode

Education

University of Toronto (GPA: 3.97/4.0)   **September 2023 - 2026**

Computer Science Specialist (**Dean's List Scholar**) | Focus Areas: AI and Computer Systems

Relevant Coursework (by Summer 2025): Data Structures/Algorithms (Python), Linear Programming, Software Design (Java), Systems Programming (C/Unix), Intro to Databases, Intro to Machine Learning

Notable Projects

DeepEmotion ML Developer (https://tinyurl.com/DeepEmotion)
- Developer for the DeepEmotion project with the UofT machine intelligence student team, working on developing machine learning algorithms for continuous fMRI classification

Aercoustics ML Developer (https://aercoustics.com/)
- Working to develop ML Algorithms for Aercoustics, a sound engineering company based in Toronto

Citadel Invitational Terminal One Hackathon (https://github.com/Steelcrawler/CitadelHackathon)
- Selected by Citadel to develop an algorithm with a team to compete in the Terminal One game

UOFT Hacks (https://github.com/Steelcrawler/UofTHacks11)
- Lead a team that used Cohere AI, Eleven Labs, and DALL-E to build an AI chatbot that mimicked cartoon characters. Utilized Azure and Heroku for backend development

Skills

Python: Fluent, 3 years of experience, proficient with PyTorch, OpenCV, Diffusers, Flask, Qiskit

Java: Fluent, 4 years of experience**,** implemented applets

Front-end Development: Experience with Javascript (React), Tailwind CSS, HTML to build websites

Linux/Slurm: Research experience with Linux to manage workspaces and Slurm to allocate resources

Machine Learning: Experience with image segmentation, diffusion models, transformers

Git/GitHub: Proficiency with use of Git for version control and GitHub

SQL/Excel: Working knowledge of SQL and Excel to manage and manipulate large databases