

EDUCATION

McMaster UniversitySept 2021 — Apr 2026

Bachelor of Computer Science | GPA: 4.0

- Provost Honour Roll and Dean's honour roll for achieving a GPA of 4.0

EXPERIENCE

Software Engineering / Machine Learning InternMay 2023 — Aug 2024

Bel Canada | Python, VertexAI(GCP), LLM, Next.js, React, FastAPI, Big Query, PostgreSQL, Cloud RunToronto, ON

- Led planning and implementation of a fullstack generative AI app, reducing training costs by 65% through simulating a customer.
- Collaborated with a team of 5 to scale the app for 5,000+ agents, leveraging Next.js, FastAPI, and PostgreSQL.
- Improved agent's performance by 30%, utilizing Gemini's tool calling and dynamic rubrics to provide personalized feedback
- Increased the realism of scenarios through prompt engineering and fine tuning the LLM's weights

Teaching AssistantJune 2022 — Present

McMaster University | Python, Bash, PostgreSQL, Discord APIHamilton, ON

- Optimized grading process for 1,000+ course materials (labs, assignments, exams) by developing Python and Bash scripts
- Taught Python, C, Bash, and Linux fundamentals to 100+ students through tutorials and labs

Technical VPJul 2022 — Present

DeltaHacks | Next.js, TRPC, Prisma, Netlify, Tailwind, NextAuth.js, Typeform, PostgreSQLHamilton, ON

- Managed 7 developers building a stack ranking based judging platform, streamlining 30+ judges' evaluation of 100+ projects
- Integrated TRPC, Prisma, and Netlify functions stack which scaled the backend to handle 10,000+ requests throughout the year
- Developed a graph-based matchmaking tool that paired over 500 hackers into compatible teams based on interest and skillset

PROJECTS

When the Assignment | A Tool for Tracking Upcoming Deadlines

Next.js, Tailwind, Shadcn, TypeScript, PostgreSQL, Prisma

- Employed a session-based architecture to eliminate the need for authentication and user sign up
- Developed a deadline-priority task tracking system to ensure appropriate time management.
- Implemented a platform-agnostic calendar syncing by hosting remote ICS files using Next.js middleware

Grassy | A friendly bracket robot that plays rock paper scissors

Python, Rive, Next.js, OpenCV, websockets, MQTT

- Created a frontend interface to communicate over mqtt websockets and show robot emotions through Rive animations
- Implemented a tracking algorithm using OpenCV to find people and prompt them to play rock paper scissors

HACKATHONS

Scuba - Declutter your email with ai agents | HackMIT

Python, LlamaIndex, Langchain

- Developed 5 LLM agents to automate emails using LlamaIndex and the ReAct reasoning method
- Created a RAG model based on past emails to allow extensive personalization and accuracy

Dash - All in one dashboard for digital life | HacktheNorth

GCP, Next.js, React, Typescript, Tailwind, Prisma ORM, CockroachDB

- Integrated with Yahoo, GitHub and Google APIs such as Gmail, Calendar to provide realtime updates
- Implemented a custom grid component in React to allow maximum user customizability

SKILLS

Languages	Python, Web Development (JavaScript, Typescript, HTML, CSS), Java, C++, C, Rust, Bash, Haskell
Frameworks	React, Next.js, Tailwind, Django, FastAPI
Tools	Linux, Git, Cloud Services (Google Cloud Platform, AWS), Relational Databases (SQL, PostgreSQL)
Design	Prototype design with Figma, Photoshop