

MUNIM ADIL

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Education

HBSc in Computer Science, Geographical Information Systems

Expected graduation: Jun. 2026

University of Toronto, Canada

- Recipient of the **University of Toronto Student Engagement Award**
- **Relevant Coursework:** Systems Programming, Databases, Algorithm Analysis, Software Design, Computational Theory, Data Structures, Web Development, Software Engineering, Spatial Data Science

Experience

Computer Science Teaching Assistant | University of Toronto

Sep. 2024 – Dec. 2024

- **Technologies:** Java, Python, HTML/CSS, MongoDB, Express, React, Node.js, Git
- Delivered engaging tutorials for the following popular university-level courses: **CSC207: Software Design** (SOLID, design patterns, OOD, Git practices), **CSC309: Programming on the Web** (full-stack web development, RESTful API design, async programming, deployment workflows, debugging tools)
- Selected as **Head TA** during peak periods, **managing teams of 20+ TAs**, administering weekly labs and coordinating grading of 200+ assignments per term
- Taught core course content in **20+ tutorials** for class sizes of **30+ students**

Software Developer Co-op | Environment and Climate Change Canada

May 2023 – Aug. 2024

- **Technologies:** Python, HTML/CSS, Vue.js, Linux, Cypress, Postman, Docker, Flask, AMQP, Quasar, Git
- Developed **100+ real-time weather visualizations** for MSC GeoMet, supporting **1 million+** daily map loads
- Integrated AI-driven forecast models into public services, improving accuracy and efficiency by **20%**
- Reduced pipeline validation times from **10 min to >1 min (-90%)**, speeding data dissemination
- Independently built an interactive, cross-browser compatible UI, accelerating data collection by **75%** from complex, multidimensional datasets, earning a **perfect performance evaluation** record from supervisors

Full Stack Developer | University of Toronto Research Opportunity Program

Dec. 2022 – Aug. 2023

- **Technologies:** TypeScript, MongoDB, Express, React, Node.js, DigitalOcean, Python, Git
- Optimized ETL workflows through Python scripts, accelerating data ingestion by **80%** and improving data accuracy by **25%**
- Promoted from Research Student to Research Assistant **within 3 months** for high-impact contributions and leadership

Projects

[SpeakWrite](#) | Next.js, FastAPI, Gemini, PostgreSQL, WebSockets, Nginx

Jan. 2025 – Present

- Spearheading the development of a **scalable, web-hosted AI agent** with a **microservices-based architecture** using REST and WebSocket APIs, enabling intelligent, real-time conversational text editing
- Leading a **team of 7 software engineering students**, utilizing **Scrum methodology** to oversee sprints, manage project timelines, and drive execution through communicating strategic high-level architectural and deployment decisions
- Designing and optimizing **prompt engineering strategies**, fine-tuning model behaviour to improve text coherence, accuracy and response efficiency

[luna.sh](#) | C++, lldb, CLI, Make, conda, Git

Sep. 2024 – Dec. 2024

- Built a **custom Unix shell** in C++, supporting core commands (cd, pwd, ls, rm, mv) with flag options and seamless command history navigation
- Implemented **memory-efficient object-oriented design** with custom test suites

Technical Skills

Languages: Python, Java, C/C++, SQL, HTML/CSS, JavaScript

Frameworks & Libraries: React, Next.js, Vue.js, Node.js, Express.js, FastAPI, Django, Flask, HuggingFace, Cypress

Tools & Platforms: MongoDB, Docker, Git, Linux, PostgreSQL, Postman, Make, Vercel, DigitalOcean