

# MUNIM ADIL

GitHub: [moonscape09](#) | LinkedIn: [munimadil02](#) | Email: [munim.adil@mail.utoronto.ca](mailto:munim.adil@mail.utoronto.ca) | Portfolio: [munimadil.com](#)

## 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**
- **Courses:** Systems Programming, Databases, Algorithm Analysis, Software Design, Computational Theory, Data Structures, Web Development, Software Engineering, Spatial Data Science

## 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

**GIS:** GDAL, OpenLayers, Leaflet, ArcGIS

## Experience

**Computer Science Teaching Assistant | University of Toronto**

**Sep. 2024 – Dec. 2024**

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** with class sizes of **30+ students**

**Software Developer Co-op | Environment and Climate Change Canada**

**May 2023 – Aug. 2024**

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**

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: AI-Powered Conversational Text-Editing Agent** | Next.js, FastAPI, Gemini, PostgreSQL, WS

- 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: Unix Shell** | C++, lldb, CLI, Make, conda, Git

- 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.