Matthew Lew

📞 647-518-3143 ✉️ matthew.lew008@gmail.com 🔗 linkedin.com/in/matt-j-lew 🔗 github.com/Matthew-J-Lew 🌐 matthewlew.dev

Education

Toronto Metropolitan University   **Sep. 2021 – May 2026**

Honours Bachelor of Science (HBSc) in Computer Science, Minor in Cybersecurity

- **CGPA:** 3.86; **Dean's List:** 2021–2025
- **Relevant Coursework:** Algorithms, Data Structures, Operating Systems, Database Systems, Artificial Intelligence, Computer Security, Data Mining

Experience

Toronto Metropolitan University – Faculty of Arts   **Sep. 2025 – Present**

AI Software Developer   *Toronto, ON*

- Developing an AI-powered academic program navigation chatbot using Retrieval-Augmented Generation (RAG).
- Implementing data ingestion and retrieval pipelines with Dockerized PostgreSQL, Python, and LLaMA.

Toronto Metropolitan University – CRESSET Lab   **Sep. 2025 – Present**

Researcher - IoT Software Security   *Toronto, ON*

- Prototyping an LLM-driven pipeline that converts natural-language software specifications into UML models, and UML models into source code.
- Exploring applications of agentic AI to automate secure IoT software design and development.

Mitsubishi Heavy Industries RJ Aviation – MHI RJ   **May 2023 – Aug. 2024**

Software Developer   *Mississauga, ON*

- Navigator IETP | *Python, Java, MySQL, Jenkins, Maven, Tomcat*
  - Primary Developer maintaining a customer-facing Java application (web and standalone).
  - Resolved customer issues via email and live meetings using debugging and log analysis.
  - Implemented server and database migration from third-party to internal services, increasing application profit by 40%.
- Automated Operator Data Pipeline | *Python, SQL* Loader, Pandas, OracleSQL, Cron*
  - Proposed, designed, and implemented automation for manual data loading, eliminating human error and saving 5+ hours weekly.
  - Developed Python scripts and SQL* Loader control files to fetch/load data and generate daily email reports via Cron-job scheduling.

Projects

CauseCompass | *Next.js, TypeScript, Gemini AI API, Prisma, Supabase, Git*   **Oct. 2025**

- Built an AI-powered web app that rates companies' ethicality across human rights, sustainability, and inclusivity causes, using Google's Gemini LLM for grounded, real-time summaries.
- Collaborated in a 36-hour hackathon to design, deploy, and demo a working prototype on Devpost.

AI Resume Tailor Web App | *Next.js, Tailwind CSS, OpenAI API, Prisma, SQLite, Git*   **Jun. 2025**

- Developed an AI-powered web app that generates tailored LaTeX resumes and cover letters by analyzing user resumes and job descriptions using OpenAI's GPT model.
- Implemented parsing for LaTeX and PDF uploads into structured JSON stored in a local SQLite database.

Adult Income Machine Learning Classifier | *Python, Pandas, NumPy, scikit-learn, Git*   **Apr. 2025**

- Built a machine learning pipeline to classify adult income levels using UCI census data.
- Evaluated five models (Logistic Regression, Random Forest, Naive Bayes, SVM, k-NN) and visualized performance metrics with Matplotlib.

Technical Skills

Programming Languages:	Python, Java, C/C++, TypeScript, JavaScript, Bash
Web Development:	HTML, CSS, React, Node.js, Next.js, Tailwind CSS
Data & Databases:	SQL, PostgreSQL, MySQL, SQLite, Pandas
Tools & Platforms:	Git, Docker, Jenkins, AWS, Azure DevOps, Linux, Agile