Nadim Mottu

+1 647-594-9446 — nadimmottu@gmail.com — www.linkedin.com/in/nadim-mottu — https://github.com/nadim-mott

Skills

Languages: Java, Python, C, MIPS, GML, Lua
Web Dev: JavaScript, HTML, CSS, React, Next.js
Databases: PostgreSQL, Prisma, SQLite

Libraries: Java Swing, Numpy, SciPy, scikit-learn, JavaFX
OS: Debian, Ubuntu, Windows
Tools: Docker, NextCloud, Latex, excel, GIMP, Adobe Photoshop, Adobe Premiere

Education

University of Toronto **September 2022 – May 2026**
Bachelor of Science *CGPA:3.73/4.00*
Computer Science Specialist with a Focus in Theory of Computation, Minor in Mathematics

- Courses Taken: Computer Organization, Software Tools and Systems Programming, Enriched Data Structures, Software Design, Enriched Theory of Computation, Analysis I&II, Algebra I&II, Probability and Statistics I, Topology, Machine Learning, Artificial Intelligence, Programming on the Web, Databases, Graph Theory
- University Of Toronto International Scholar Award - Faculty of Arts and Science (2022-2026)// Dean's List Scholar in the Faculty of Arts & Science (2023–2024)// Innis College Exceptional Achievement Award (2023–2024)

Washington International School **2014 – 2022**
IB - Bilingual Diploma *IB: 41/45 - GPA: 7.00/7.00*

- Higher level: Mathematics: Analysis and Approaches, Physics, Economics,
- Representative for student government (ISU) // Founder of Coding && Computing Club

Experience

Internal Drive Tech **June – August 2024**
Summer Instructor *Amazon HQ/American University — Washington, DC*

- Taught 7 one-week classes to elementary school children in coding skills through games like scratch and Lua
- Helped over 50 students develop projects making sure to highlight important software engineering practices such as testing, debugging, reviewing one another's work. Explained technical concepts such as boolean algebra.
- Collaborated with other instructors to develop curricula and filled in when needed.

Toronto Climate Observatory **May – June 2024**
Research Assistant *University of Toronto — Toronto, ON*

- Developed with another student a model using CMIP6 to predict changes in temperature in Toronto and how that might impact skating rink closures as a part of a research team. Documented and explored "the usability gap" and how to make climate data more usable to people with only a basic understanding of climate science.
- Used data analysis libraries for Python such as NumPy and Matplotlib, along with techniques such as linear regression.

Highlighted Projects

Ecliptica Town - An LLM Based Detective Game **January 2025 – April 2025**
https://team-ecliptica.itch.io/ecliptica-town

- Designed AI systems based on Large Language Models to simulate NPC interactions in a detective video game.
- Fine tuned models and optimized them to run on local hardware. Showcased the results at Zynga games studio.

Minesweeper AI **December 2024 – Present**
https://github.com/nadim-mott/minesweeper

- Developed a terminal based implementation of popular puzzle game Minesweeper coded in C with separate compilation.
- Uses AC-3 to automatically solve a puzzle or determine if a given puzzle can be solved without needing to make a guess.

Scriptorium **September 2024 – December 2024**

- Develop with a team a website in React and tailwindCSS allowing users to develop and share their code.
- Provides isolation to all projects using Docker in backend, and allows users to run code in a safe environment.
- Allows for user account creation authentication, rating, posts, and reporting. Follows REST best practices.

Tetris in Assembly **January 2024 – April 2024**
https://github.com/nadim-mott/tetris_assembly

- Developed a Tetris game in MIPS assembly language. Used the SATURN simulator to run the code.
- Made use of low level programming techniques to develop the game. Used bit map to display the game and UI.
- Collaborated with a partner. Wrote the game logic, graphics, and reviewed code written by my partner.