

Nadim Mottu

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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
- Courses in Progress: 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 HL, Physics HL, Economics HL,
- Representative for student government (ISU) // Founder of Coding && Computing Club

Relevant 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

Scriptorium

September 2024 – Present

- 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 one another's code in a safe environment.
- Allows for user account creation authentication, rating, posts, and reporting. Follows REST best practices.

D&D Digital DM screen App

April 2024 – Present

<https://github.com/nadim-mott/DnD-Screen>

- Developed a digital DM screen for Dungeons and Dragons in JavaFX. Follows the MVC design pattern.
- Uses databases to store information on monsters and spells. Stores data with optimal use of custom data structures.
- Makes use of the Open5e API to provide information on spells and monsters. Provides dice roller, and initiative tracker.

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.

Caesar Productivity App

September 2023 – December 2023

<https://github.com/nadim-mott/Caesar>

- Developed a task and event management application in Java, adhering to Clean Architecture and SOLID principles.
- Built the app from scratch as part of a team of three. Conducted code reviews for other contributors' use-cases.