Gilberto Tumangday

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EDUCATION

Bachelor of Applied Science & Engineering - Computer Engineering + PEY Co-op **Sep. 2023 - Apr. 2028 (expected)**
University of Toronto, St George Campus, Toronto, Ontario

SKILLS & RELEVANT COURSES

- Programming: C++, C, Java, Python, JavaScript, HTML, CSS Verilog, Assembly, Git, React, Next.js, Pytorch, NumPy
- CAD: LTSpice, SolidWorks, Quartus, MATLAB, Altium
- APS360 Applied Fundamentals of Deep Learning (Pytorch)
- ECE297 Software Design and Communication (C++ Design Course)
- ECE241 Digital Systems (Verilog, Quartus, FPGA)

EXPERIENCE & PROJECTS

MACHINE LEARNING INTERN **Jun. 2025 - Jul. 2025**
Sound of Molecules • Remote

- Currently working at a Molecular Discovery Startup backed by iVenture through the University of Illinois
- Assisting with end-to-end ML pipeline development—from data consolidation and web-scraping to model research, architecture design, and training—supporting novel molecular discovery through sonification.
- Building scalable solutions using AWS and custom database APIs, accelerating experimental iterations, and enhancing model performance.

FULL STACK & ML INTERN **Jun. 2025 - Jul. 2025**
Wurkn HR • Remote

- Assisting with the development of an AI-optimized HR platform MVP to be deployed in the fall.
- Leading Frontend and Backend optimization efforts, debugging UI issues, and backend/API roadblocks. Designing iterative LLM models for sentiment analysis and representation.

ASL SIGN READER MODEL **May 2025**
Personal • Toronto, Ontario

- Built an ASL digit classifier from Kaggle data to work with local camera feed, used Mediapipe and PyTorch for landmark detection and training (using cv2 for camera)
- Achieved strong test accuracy while applying deep learning and computer vision techniques.

GIS MAPPING SOFTWARE **Jan. 2025 - May 2025**
University of Toronto • Toronto, Ontario

- Designed and built a GIS mapping tool in C++ with GTK for tourist navigation, implemented OSM-based map loading, intersection search, and pathfinding. Enhanced UX with zooming, dark mode, and icon overlays.
- Final product was fully functional GIS software with dynamic map loading and robust features.

SMART GLASSWARE STORAGE SYSTEM **Jan. 2024 - May 2024**
University of Toronto, Toronto, Ontario

- Managed a group of 6 students to design & pitch a glassware storage system using SolidWorks to develop & print a functioning prototype
- Organized weekly group meetings & biweekly client meetings, using Microsoft Project & LucidChart to maintain Gantt & flow charts/schedules

EXTRA/CO-CURRICULARS

SUMO & COMBAT ROBOTICS TEAM MEMBER **Oct. 2023 - Jan. 2025**
University of Toronto • Toronto, Ontario

- Worked in a team of 3 other engineers to build an autonomous robot to participate in "SUMO wrestling" competitions
- Used SolidWorks to design & 3D print frame parts, used Arduino boards to control robots with embedded systems using motors & sensors.
- Helped design controlled combat robots using C++, Arduinos with motors, sensors, LEDs, & hardware troubleshooting

DIRECTOR **Oct. 2023 - May 2024**
First Year Board of Directors, UofT Engineering Society (EngSoc), Toronto, Ontario

- Helped plan & execute events for first-year engineering undergrads at UofT. Utilized research to identify potential venues, created & collaborated with other directors to plan themes, resulting in an end-of-year socialization & networking event for over 200 first-year students

PRESIDENT **Sep. 2022 - Jun. 2023**
Computer Science Club, St Michael's College School, Toronto, Ontario

- Orchestrated the education of over 60 students in learning Python & Java
- Organized weekly club meetings, tutoring students in preparation for the Waterloo "Canadian Computing Competition"

PERSONAL PORTFOLIO WEBSITE
https://gilbertotumangday.dev/