MICHAEL LANDER

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EDUCATION

Bachelor of Applied Science in Computer Engineering **Sep 2023 - Apr 2027**
University of Toronto

- Edward S Rogers Sr. Admission Scholarship
- Faculty Of Applied Science And Engineering Admission Scholarship
- Courses: Data Structures and Algorithms, Software Design, Computer Networks, Signals and Systems

EXPERIENCE

Firmware Team Member **May 2025 - Present**
U of T Aerospace Team, Space Systems

- Develop and Test Firmware Using **C** in **Zephyr RTOS** for our **FINCH** mission **Cube Satellite**
- Use **Zephyr Drivers** for our Heater and Real-Time Clock Systems
- Tested **CAN** bus Driver on the **Oscilloscope** for Communication Between our Two On-Board **PCBs**

AI Trainer **Mar 2025 - Sep 2025**
Outlier AI

- **Reviewed and Provided Quality Feedback on Machine-Generated Responses**, Helping Raise model Precision/Recall Scores with **90% accuracy** Through Consistent Application of Evaluation Guidelines.
- **Generated and Curated High-Quality Training Prompts** Across Diverse Domains, Contributing to a **20% Increase in Model Response Relevance** During A/B Testing

Creative Director **Jan 2024 - Apr 2024**
U of T Engineering Team

- Developed a **Functional, Non-Intrusive Medical Device Prototype**, Resulting in **98% Data Tracking Accuracy**, Ensuring Better Diagnoses of Sleep Disorders
- **Led Creative Decisions** of The Team Regarding Many Elements of the Project
- The Prototype **Budget was Kept Under $100**

PROJECTS

Responsive Web Application | HTML, CSS, Javascript

- Built a Travel Tracking Website with Interactive **Leaflet.js** Mapping and Published it on GitHub Pages
- **Implemented Local Storage** for User Data Persistence and **95% Accurate Vector Layer Interactions**

FPGA Memory Game | C, RISC V Assembly

- An Interactive Memory-Based Game Developed On An **FPGA** Board Running A **NIOS V** Processor
- **User-Triggered Clock Randomizes Every Path**; Has Full **VGA** and **Audio Output**

Mapping Software | C++

- Developed **Customizable, Interactive** Mapping Software with a Team
- Uses **OSM Data**; Algorithms Like **Dijkstra's Employed for Efficient Pathway Calculations**
- **Optimized Memory Usage** And Processing Speeds; **Multithreaded** for up to **4x Performance**

FPGA Brick Breaker | Verilog, C

- An Interactive **Brick Breaker** Game Developed on a **De1-SoC FPGA** Board Using **Verilog** and **C**
- **De1-SoC Push Buttons** Used for **Movement**; Has Full **VGA** and **Audio Output**

TECHNICAL SKILLS

Languages: C/C++, Python, HTML, CSS, JavaScript, Verilog HDL, RISC-V Assembly, MATLAB

Tools: Git, GitHub, Linux, VS Code, PyCharm, Zephyr, LTspice