

Technical Skills

- **Languages:** C++, C, Python, PHP, Bash, JavaScript, HTML/CSS
- **Frameworks and Tools:** Git, GDB, Angular, NumPy, Pandas, ASP.NET, Node.js, MySQL, Excel
- **Skills:** Agile development, Firmware testing, SolidWorks, Automation scripting, OOP, Algorithms

Experience

AMD

Firmware Engineer II

Toronto, ON

Sep 2022 – Jan 2024

- Developed and maintained high performance stress tests across AMD product lines including CPU, GPU and APU
- Led the design and validation of a critical test suite to prove **reliability** for MI300, a **generative AI** server chip
- Collaborated with **cross-functional teams** by providing technical support to investigate and **debug** crashes, errors, failures and performance issues for hardware stress tests, delivering under **tight deadlines**
- Performed test time reduction and correlation studies on defective parts to improve the diag team's ability to catch errors and improve validation speed by **tuning parameters** such as temperature, voltage and clock speeds
- Enabled testing on a suite of hardware systems by flashing **firmware**, installing **Linux**, and setting up SSH
- Wrote and optimized a **multithreaded C++** system memory integrity check tool to debug and accurately pinpoint kernel memory corruption failure discovered by an external team

Bank of America Merrill Lynch

Software Engineer Intern

New York, NY / Remote

May – Aug, 2021

- Developed and maintained investment analysis platform for trade analysts using **Angular**, Jasmine, HTML, CSS
- Improved unit and integration test **coverage by 41%** using JavaScript/Jasmine test framework
- Investigated Ansible and Jenkins build server configuration issue causing CI/CD slowness and restructured Node.js packages to **reduce build time** from 18 mins to 2 mins

Bank of Montreal

Software Developer Intern

Toronto, ON

Sep - Dec, 2020

- Overhauled legacy mortgage billing software by designing a web app in **ASP.NET Core** using C#, SQL, HTML, CSS
- Acted as a **liaison for business and software** teams, translating business needs into technical requirements
- Implemented features including account access management and **client/server side form validation** logic

Ignis Innovation

Embedded Software Engineer Intern

Waterloo, ON

Jan – Apr, 2020

- Worked with a team extending longevity of aged OLED displays by addressing pixel burnout on **Android devices**
- Extended IGNIS's **bare metal C application** to read PNG image data from flash memory, then process and send it to the **frame buffer** to be displayed

Automation Tooling Systems, Life sciences

Systems Engineer Intern

Waterloo, ON

May – Aug, 2019

- Designed novel aseptic manufacturing process for distributing lyophilized beads into pallets, training **6 axis arm**
- Performed **Factory Acceptance Testing**, debugging assembly line bottlenecks using **Root Cause Analysis**
- Estimated tooling requirements for automation lines by performing timing analysis based on customer specs

University of Waterloo

Full Stack Developer Intern

Waterloo, ON

Jan – Apr, 2018

- Created course evaluation **metrics dashboard** using Linux, Apache, **MySQL** and **PHP**, LAMP stack to visualize trends in teaching performance based on the student review database accumulated over the past 20+ years

Education

University of Waterloo

Honours BSc. Mechatronics Engineering Co-op, (3.7 GPA) Artificial Intelligence Option

Course work: Operating Systems, Compilers, Embedded Software, Autonomous Vehicles, Computational Statistics, Control Systems

See my projects at lin34.github.io