

Mischa Lamoureux

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SKILLS

Agile | Project Management | Python | C++ | C | Java | ROS | AWS | MQTT | Docker | Git | ClickUp

PROFESSIONAL EXPERIENCE

Autonomous Robotics Software Developer

Jan 2023 – Apr 2023 | Kitchener, Ontario

Swap Robotics

- Designed and developed a robotics diagnostics dashboard with **React**, **Material UI**, **MQTT**, **MobX State Tree**, and **Docker**, **increasing troubleshooting efficiency by over 50%**
- Created and implemented a **GUI** to interface with robot-side configurations via a **ROS Service Pub/Sub node** in **Python**
- **Increased maintenance and operation efficiency by 34%** with a **Python** script to automatically offload fleet video footage via Google Drive's **REST API**
- Created dynamic data visualization and report viewing for complex **DynamoDB/Amazon S3** CSV files using **Chart.js**

Software Developer Intern

Apr 2022 – Aug 2022 | Whitby, Ontario

Mitch Insurance

- Developed a ruleset management web application using **Vue.js**, **Node.js**, and **jQuery** to remap internal data to communicate with external **APIs** via **Express.js**
- Managed data in **MySQL** and **MongoDB** to securely and efficiently save client information
- **Increased customer satisfaction by 23%** by deploying a user feedback feature with **React** and **Axios** that connects to **Jira's** **REST API** for interactive task tracking
- Adhered to **Agile methodology** to produce working code in short sprints
- Expanded workplace communication and collaboration skills by participating in daily **technical scrums** with the development team

Lead Software Developer

Aug 2018 – Oct 2022 | Calgary, Alberta

Infinite Mind Pictures

- Administered and maintained a **cloud-hosted** environment of more than 25 servers utilizing **FTP** for deployment and **MySQL** for plugin coordination
- Contributed to and authorized **nine publicly released projects** comprised of custom-designed **Java** plugins and applications
- Managed a team of 10 members to produce and release public educational software in partnership with the **University of Calgary** and the **Virtual Museum of Canada**
- Taught programming classes of 12 students in summer camps using **Google Workspace**, **Outschool**, and **Canva**
- Orchestrated weekly meetings to assign project tasks on **Jira** and address team concerns
- **Monitored project performance** through weekly audits to ensure maximum efficiency and customer satisfaction

PROJECTS

Fitly

Cross-platform Application [Flutter, Swift, JavaScript, Node.js, MongoDB, Figma]

- **Founded and led a startup** to create a **cross-platform app** allowing clients to connect with personal trainers worldwide
- Created **UI/UX designs** in **Figma** and integrated them with **Flutter** and **Swift**
- Designed and implemented architecture for a **NoSQL** database with **MongoDB**

Personal Portfolio

Website [React, CSS, EmailJS, GitHub Pages]

- Designed and developed a **dynamic single-page website** portfolio using **React**, **CSS**, and **Git**
- Improved **UI/UX design skills** utilizing feedback from past clients

Chime-In

Interactive Electronic Game [C, Microcontroller]

- Developed and built a single-player Simon-inspired game in **C** with a **STM32 Nucleo Board** integrating multiple pushbuttons and addressable LEDs
- Used **Git** and **Notion** for project organization, team collaboration, and source control

LEADERSHIP & EXTRACURRICULARS

Waterloo Engineering Competition Deputy Chair

Mar 2023 – present | Waterloo, Ontario

- **Led a team of 25 members** to assist in the preparation and execution of the Spring 2023 Waterloo Engineering Competition
- Collaborated with faculty members to **manage and allocate \$7000 in funds**

Toyota Innovation Challenge

May 2023

- Tackled complex **machine vision** and **automotive** challenges with a team of four in a two-day hands-on workshop

EDUCATION

Candidate for Honours Computer Engineering Co-op

Sep 2021 – Apr 2026 | Waterloo, Ontario

University of Waterloo