Darren Lam

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PROFILE

- **2 years of experience in software development** with emphasis on Python and Java-based solutions
- Fluent in IT applications and techniques revolving around **cybersecurity and database management**
- **Programming Languages:** Java, Python, JavaScript, TypeScript, HTML, C, CSS, ARMv8, Haskell
- **Tools & Technologies:** Git, React.js, React Native, Node.js, Express, Flask, JavaFX, SQL, SQLite, MongoDB, Postman, WebSocket.io, JUnit, FEA, CAD, SolidWorks, Ansys Workbench, Ansys Mechanical, Visual Studio Code, IntelliJ, PyCharm, Linux

EDUCATION

Bachelor's of Science, Computer Science   **Sep 2023 - Present**

University of Calgary, Calgary, AB

- **Concentrations:** Software Engineering, Information Security, Full-Stack Development
- Science Internship Program
- 3x recipient of the Jason Lang Scholarship
- **Relevant coursework:** Data Structures and Algorithms, Software Engineering, Computer Networks, Object-Oriented Programming, Operating Systems, Database Management Systems, AI Research

PROJECTS

CollectPal

A React.js/SQLite/Flask stack web application to assist with gas meter-reading collection

- Developed a **BFS-style GPS mapping algorithm** using **Google Maps API and haversine mathematics** to ensure **100%** accuracy in finding the most efficient collection route
- Incorporated a **SQLite and Flask backend system** to assist with responsive updates to the CSV-based GPS route, reducing load times by **25%** and increasing work organization by **50%**
- Implemented real-time **NMEA** location fetching using a **VK-162** GPS dongle device to provide the Maps API with accurate location data
- Expected to incorporate a seamless web page that favours user ergonomics with **React UI**, and a streamlined front-end to back-end system

Portfolio Web Page

A React.js/Tailwind CSS website intended to showcase my skills and experience as a computer science student

- Built a full-stack portfolio application utilizing **React.js, Tailwind CSS, and JavaScript** with component-based architecture and state management via **React hooks**
- Engineering responsive UI components, including animated skill progress bars, project card grids, and theme toggling functionality with the help of **local storage API integration**
- Optimized performance through **lazy loading**, CSS animations, and efficient rendering patterns, achieving fast load times and smooth user interactions across devices ranging from mobile to desktop

TECHNICAL EXPERIENCE

Automation Intern   **May 2025 - Aug 2025**

ATCO, Calgary, AB

- Developed an early iteration of CollectPal in VS Code using Python, increasing collection efficiency by approximately **30%**
- Worked closely with field-workers to streamline CollectPal, resulting in the completion of **3,260** readings over four months
- Collaborated with the Itron and Temetra development teams to deploy and test CollectPal in the field

IT Intern   **Sep 2023 - Apr 2024**

CovarsaDx Corp., Downey, CA

- Migrated internal workflows to Microsoft Azure, increasing collaboration efficiency by **25%** across **50+** users
- Resolved technical support requests with a **95%** first-contact resolution rate, reducing downtime by **75%** compared to last year's statistics
- Implemented cybersecurity measures, including extensive system monitoring and automated spam email disposal

EXTRACURRICULARS

Suspension R&D Engineer   **Sep 2024 - Present**

Formula SAE UCalgary Racing, Calgary, AB

- Designed front control arm assemblies for the **UCR-02** car using SolidWorks 2024 and Adams Car Dynamic Testing Software
- Stress-tested control arm assemblies inside SolidWorks via FEA, resulting in a final iteration with an overall FOS of **2.4** under **15,600N** of load
- Ran **FEA simulations** on all carbon fiber two-force link tubes using **Ansys Mechanical** for the **UCR-03** to determine appropriate sizing based on stress and FOS results