

## TECHNICAL SKILLS

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**Proficient:** JavaScript, Python, C#, SQL, HTML/CSS, Git, AWS, Vue, Unity

**Familiar:** React, Ruby on Rails,RSpec, Jest, jQuery, C++, Pandas, Numpy, Matplotlib, ImageAI

## EMPLOYMENT

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**Software Engineer, Intern** **Pixlee TurnTo (Toronto, ON)** **May 2021 – Aug. 2021**

- Improved website accessibility for 100+ customers by refactoring widget display logic and testing with screen reader
- Implemented the frontend of an influencer analytics page that efficiently displayed Instagram API metrics with graphs
- Led sprint development for a new product review feature by creating and assigning 30 Jira tasks based on priority
- Won 3<sup>rd</sup> place in a company hackathon by prototyping the frontend of a product recommendation system

**Software Developer, Intern** **Finastra (Toronto, ON)** **Sep. 2020 – Dec. 2020**

- Improved user experience for 20+ customer service members by redesigning frontend navigation tab layout
- Optimized quality assurance process through creating a mortgage application JSON generator to test validation
- Designed a full stack system for managing subscription services at a user, company, and sitewide level
- Increased code readability by refactoring backend calls to use consistent variables names and SQL styling

**Data Analyst, Intern** **Loblaw Companies Limited (Brampton, ON)** **Jan. 2020 – Apr. 2020**

- Increased sales by building mathematical models to predict transactional behavior of over 10,000 customers
- Optimized data aggregation/filtering time from 1 hour to 30 mins with efficient SQL queries/data management
- Created several data dashboards with Matplotlib and presented findings to marketing team executives
- Analyzed over 1 million customer transaction data using different statistical methods such as A/B testing

## PROJECTS

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**Personal Website:** <https://adrianlamcw.github.io> (includes link to all projects)

**Game: Profits Per Parsec** (C#, Unity)

- Designed a grand strategy game aimed at managing a futuristic rocket business in the solar system
- Coded a physical solar system model with planet/ moon rotation and circular/ elliptical orbits
- Developed rocket pathfinding algorithm with object avoidance in 3D space using vectors for optimal space travel
- Created several UI elements including a research system with initial costs for progression scaling up to 100 years

**Image Recognition Web App** (Python, ImageAI, SurveyMonkey API)

- Won 1<sup>st</sup> in the Hack the North SurveyMonkey API challenge for the best and most creative usage of their API
- Guided a team of 4 to create a machine learning image recognition model to recognize hand gestures as input
- Built a script that automatically generated a survey based on the response from the machine learning model

**Discord Chat Bot** (JavaScript, Discord API, AWS, SQL)

- Customized a discord bot to keep track of outstanding debts between users by command input
- Used an AWS RDS MySQL database to store debt data and discord.js plus node to interact with the Discord API

**Game: Estate** (C++, Allegro)

- Developed a real time strategy game with resource/unit management like Age of Empires 2
- Coded an algorithm for 2D isometric image rendering order and optimal unit spawn mechanics

## EDUCATION

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**University of Waterloo** **Sep. 2018 – 2023**

- Candidate for Bachelor of Applied Science, Mechatronics Engineering, GPA: 3.9

**Relevant Courses:** Algorithm and Data Structures/ Computer Structures and Real-Time Systems

## HOBBIES AND ACCOMPLISHMENTS

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- Fundraised \$10,000 and constructed a classroom in Tonga as part of a humanitarian project
- Love for badminton, basketball, video games, Marvel movies, anime, cooking, and snacking