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🎓 Education

University of Waterloo

Bachelor of Computer Science (Digital Hardware Specialization)

Relevant Coursework: Data Structures and Algorithms, Operating Systems, Probability and Statistics

2020 – Present (3rd Year)

Waterloo, ON

🔧 Experience

YuJa Inc.

Software Developer

September 2022 – December 2022

Toronto, ON

Technologies & Skills: [Java](#), [JavaScript](#), [React.js](#), [React Native](#), [AWS \(SAM, DynamoDB/NoSQL, Lambda\)](#)

- Developed a student response system in React.js to launch polls/quizzes with real-time responses
- Created back end microservices in Java, and used AWS Lambda, DynamoDB, and API Gateway, to deploy scalable REST APIs to handle 2000+ concurrent requests from students and professors
- Developed exam mode feature for polls, where host can share poll questions all at once, and used Java web sockets to correctly and synchronously track student progress with respect to exam time limits
- Reduced costs by up to 40% by using React Native to create accessible cross-platform, iOS and Android mobile apps for students to participate in polls, which also advanced the app's release by 2 months
- Reconstructed the entire web app UI in React.js within 1 week of pilot release, as requested by client

The Centre for Education in Mathematics and Computing

Full Stack Developer

January 2022 – May 2022

Waterloo, ON

Technologies & Skills: [Linux](#), [MySQL](#), [PHP](#), [AWS Cloud](#), [Docker](#), [JavaScript](#), [jQuery/AJAX](#), [CSS Bootstrap](#), [OOP](#)

- Created various web apps to proctor, distribute, and handle high school Math and CS contests
- Developed a CRUD application to allow the customer service team to easily access 11,000+ student profiles
- Developed a PHP and SQL script to convert and store contests from over 1000 LaTeX files to HTML instantly, using MathJax, which eliminated manual uploading and formatting for the contest development team
- Reduced contest proctoring app size from 1.8 GB to 300 MB, by migrating from VMs to Docker Containers
- Improved scalability of contest proctoring app, using AWS Fargate and ECS to host and deploy its container

AltaML

Junior Machine Learning Developer

July 2021 – August 2021

Calgary, AB

Technologies & Skills: [Microsoft Azure](#), [Python](#), [Git/GitHub](#), [Microsoft Office 365](#), [Machine Learning \(CV\)](#)

- Collaborated with Rogers media team to create a computer vision model to analyze hockey game footage, to track players and use Azure AI to collect and analyze in-game data to meet pre-determined business goals
- Used a Python script to efficiently analyze 3+ hours of media to produce and tag over 100 frames of data
- Led team to iteratively develop and evaluate a final Computer Vision model with a 95% precision score

🔬 Projects

YouTube Video Comment Sentiment Analyzer (Chrome Extension)

Technologies & Skills: [Angular.js](#), [JavaScript](#), [TypeScript](#), [Django](#), [Python](#), [Machine Learning \(NLP\)](#)

- Developed an Angular.js chrome extension to return the overall sentiment of YouTube videos by analyzing their comments using the VADER model from the NLTK library, and returning the results in a Django API

Insta Recipe (Food Blogging App)

Technologies & Skills: [MongoDB](#), [Express.js](#), [React.js](#), [Node.js](#), [REST API](#), [OOP](#), [JSON](#)

- Developed a food blogging app with its own dedicated REST API to perform requests to serve or process data for 20+ users and 10+ posts, while using JSON Web Tokens to authenticate users on the platform