



CORE COMPETENCIES

- * **Languages and Frameworks:** JavaScript, Node.js, React, Redux, Python, C/C++, C#, .NET, Java, SQL, Flask, Selenium
- * **Tools and Technologies:** AWS, Docker, Paperspace, Git, Bash, Elasticsearch, Ansible, Jenkins
- * **Concepts:** Web Development, Machine Learning, Cloud Computing, REST APIs, Relational Databases, Agile, OOP

WORK EXPERIENCES

IBM – IoT & AI Developer

Jan 2020 – Apr 2020

- * Designed a REST API using Python and Flask that dynamically adds, trains, and recognizes users for facial recognition
- * Reduced training time for a new user from 1 hour to 5 minutes by creating an intermediate feature cache in HDF5
- * Implemented REST API on Paperspace in a GPU-accelerated Nvidia Docker container, halving training time
- * Developed a web-based image annotator using React, Redux and Leaflet.js to simplify object classification for business users and allow cross-platform collaboration on the same dataset of images

Genesys – Full-stack Developer Intern

May 2019 – Aug 2019

- * Created an AWS RDS microservice with serverless lambda functions and CloudFormation to simplify the architecture
- * Composed several Ansible scripts, Jenkinsfiles, and Dockerfiles to automate deployment, reducing manual workload
- * Configured and queried Elasticsearch in ECS and EC2 instances in accordance to FedRAMP standards for US approval

Nielsen – Software Developer

Sep 2018 – Dec 2018

- * Developed a utility in C# that cleans data using metadata in Oracle, improving efficiency from a day to 10 minutes
- * Used C# and Selenium to scrape flyers from major retailers to reduce manual workload from half a day to 5 minutes
- * Filtered and cleaned large datasets stored in SQL Server and Oracle, returning a compact CSV within 5 minutes

Morneau Shepell – System Developer

Jan 2018 – Apr 2018

- * Created an integration application that syncs defect data from HP ALM to Microsoft VSTS using C#, .NET Core 2.0, REST APIs and a 3-way merging algorithm to allow for smoother agile scrum meetings
- * Designed UI POCs using Bootstrap, Angular 5, and ASP.NET Core that successfully illustrated a new syncing interface

PROJECTS & ACTIVITIES

Waterloop Design Team – Front-end Web Developer

May 2020 – present

- * Refining the codebase for Waterloop's website to improve web development skills in React, Redux, and TypeScript

Handwriting Autocorrect

Feb 2020

- * Developed a Python application that parses handwriting using optical character recognition (OCR) and suggests appropriate spellings using natural language processing (NLP)
- * Implemented the messaging queue using Solace between the Raspberry Pi and the server

University of Waterloo – Undergraduate Research Assistant

Sep 2019 – Dec 2019

- * Using C++, programmed a convolutional neural network into an FPGA to hardware accelerate the custom model

Chat Server

Oct 2018

- * Created a chatroom application in Python where users can broadcast messages over the same network
- * Gained insight on key networking concepts such as TCP/IP, protocols, sockets, client-server model, and addressing

EDUCATION

University of Waterloo

2017 – 2022 (expected)

Candidate for Bachelors of Applied Science (Computer Engineering)

- * **Related Courses:** Compilers, Algorithms and Data Structures, Systems Programming and Concurrency