

ADRIAN PASQUALINI

COMPUTER SCIENCE STUDENT UNIVERSITY OF WATERLOO



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EXPERIENCE

Software Developer

BINSENTRY, JANUARY 2021 - APRIL 2021

- Used **AWS Lambdas**, **SQS**, **DynamoDB**, and **Elasticsearch** to create a search autocomplete feature that returns suggestions in under 50ms.
- Created a fully web-based augmented reality experience using **Three.js** and **WebXR**.

Software Developer

DESIGNWARE, MAY 2020 - AUGUST 2020

- Leveraged **Kubernetes**, **Traefik Reverse Proxy**, and **AWS** to develop an end to end website publisher with automatic **SSL certification** and **PWA** support.
- Created a billing system using **Stripe's** API in **Go** and **Javascript** to handle all customer subscription and invoice payments.
- Developed a scheduler micro-service using **Python**, **Go**, and **RabbitMQ** to control scheduled tasks and support the addition of future features.
- Used **Vue.js** and **DigitalOcean Spaces** to create an asset manager that allows users to upload their files to our services.

Machine Learning Software Developer

BLACKBERRY, SEPTEMBER 2019 - DECEMBER 2019

- Researched and prototyped modern machine learning techniques for **Malware Detection** on mobile devices.
- Optimized our product's Android Package scanning procedure using multi-threaded C++ to increase **malware detection speed by 80%**.
- Organized co-op student events as a member of the **BlackBerry Student Social Committee**.

TECHNICAL SKILLS

- | | | |
|--------------|----------------|----------------|
| • C++ | • Node.js | • Kubernetes |
| • Go | • Express.js | • Docker |
| • Javascript | • PostgreSQL | • AWS |
| • C | • Vue.js/React | • DigitalOcean |
| • Python | • RabbitMQ | • Git |
| • Java | • DynamoDB | • Linux/Unix |

PROJECTS

UWPath

JUNE 2020 - PRESENT

- Launched a University of Waterloo degree planning tool that quickly accrued over **2000 users**.
- Developed an easy to use interface with **Vue.js** that lets students enter custom degree combinations and schedule their future terms accordingly.

Pocket Parliament

JANUARY 2020 - FEBRUARY 2020

- Designed and built a web application using **React**, **CSS** and **Material UI**.
- Utilized existing APIs to fetch and display Parliament information such as recent events, bills, cabinet members and members of parliament.

Facial Recognition Program

SEPTEMBER 2018 - JANUARY 2019

- Developed a facial recognition program in GNU **Octave** that can distinguish between the face it was trained on and any other face.
- Implemented a gradient descent algorithm with regularization and achieved a **90%** accuracy rate within test and cross-validation sets.

Box2D Physics Simulations

OCTOBER 2017 - MARCH 2018

- Utilized **Processing 3** and the **Box2D** physics engine to model real life phenomena with digital simulations.
- Created relevant models to supplement physics lab reports when there were no adequate models online.

EDUCATION

University of Waterloo

BACHELOR OF COMPUTER SCIENCE - AI OPTION

- GPA: **3.98** Cumulative Average: **92.25%**
- Accepted into **Artificial Intelligence Option**
- Dean's Honours List for all terms.