ADRIAN PASQUALINI

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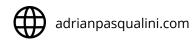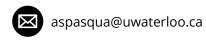
EDUCATION

University of Waterloo Bachelor of Computer Science - AI Option
• GPA: 3.98. Cumulative Average: 92.27%.
• Outstanding rating on all 4 completed co-op work terms.

EXPERIENCE

Wish - Software Engineer
SEPTEMBER 2021 - DECEMBER 2021

• Managed a data pipeline to facilitate the assigning and reviewing of tasks performed on Amazon MTurk. This automated pipeline saved hundreds of hours of manual work generating training data for ML processes.
• Improved the scalability of micro-services by leveraging AWS SQS message queues with Go.
• Led the design process for versioning support on the Wish category tree, a key internal tool for our team.
• Created gRPC services and GraphQL schemas to simplify communication between micro-services.
• Used React and Next.js to develop UI components and pages for the Wish wholesale website.

BinSentry - Software Developer
JANUARY 2021 - APRIL 2021

• Prototyped a fully web-based AR experience using Three.js and WebXR that dynamically rendered custom 3D models and positioned AR content in the user's reference space.
• Trained a custom object detection model with TensorFlow that was used to help overlay AR content onto real world bins around the user's farm.
• Created a search feature that could yield thousands of results in under a second, had autosuggest, location based search, and advanced filtering features, using AWS Lambdas, SQS, and Elasticsearch.

Designware - Software Developer
MAY 2020 - AUGUST 2020

• Developed an end to end website publisher with automatic SSL certification and PWA support using Kubernetes, Traefik Reverse Proxy, and AWS.
• Created a billing system with Stripe in Go and Javascript to handle all subscription and invoice payments.
• Built a scheduler micro-service using Python, Go, and RabbitMQ to control scheduled tasks and support the addition of future features.
• Used DigitalOcean Spaces and Vue.js to create an asset manager that let users store and edit their files.

BlackBerry - Machine Learning Software Developer
SEPTEMBER 2019 - DECEMBER 2019

• Researched and prototyped machine learning techniques for malware detection on mobile devices.
• Optimized Android app scanning 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.

PROJECTS

UWPath 🔗
JUNE 2020 - PRESENT

• Launched a University of Waterloo degree planning tool that grew to over 2000 users in its first week.
• Developed an easy to use interface with Vue.js that lets students enter custom degree combinations and schedule their future terms accordingly.
• Integrated with Firebase authentication to allow users to save their plans to their UWPath accounts.

Facial Recognition Image Classifier
SEPTEMBER 2018 - JANUARY 2019

• Developed a facial recognition program in GNU Octave that performs image classification on faces.
• Implemented logistic regression with gradient descent and achieved a 90% accuracy rate.

TECHNICAL SKILLS

Languages: Go, C++, JavaScript, Python, C
Frameworks and Tools: Kubernetes, Docker, AWS, DigitalOcean, Vue.js, React, Node, Firebase, gRPC
Data Management: PostgreSQL, DynamoDB, SQS, RabbitMQ, Redis, Elasticsearch, S3