ADRIAN PASQUALINI

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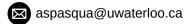
Education

University of Waterloo Bachelor of Computer Science

- GPA: 3.98. Cumulative Average: 92.4%. Combinatorics and optimization minor, Artificial intelligence option.
- Received the highest employer rating, outstanding, on all six completed co-op internships.

Work Experience

Amazon Web Services - Software Engineer   Sep 2022 - Dec 2022

- Implemented an audit mode for EC2 networking that reduced build breakages and customer issue filings.
- Launched several APIs to EC2 that aided operator debugging and sped up ticket resolution times.
- Strengthened infrastructure for our hardware testing, speeding up the test suite and shrinking capacity overheads.

Opal - Software Engineer   May 2022 - Aug 2022

- Owned our public-facing API, created our API integration testing framework, and published a toolset to aid customer onboarding. Allowing us to close deals with larger organizations and speed up deployments.
- Optimized our React UI and Go backend systems to handle clients with tens of thousands of users seamlessly.
- Partnered directly with clients to tackle critical product requests on tight timelines and progress deals forward.

Wish - Software Engineer   Sep 2021 - Dec 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 creating training data for ML processes.
- Improved the scalability of micro-services by leveraging AWS SQS message queues with Go.
- Oversaw 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.
- Developed UI components and pages for the Wish wholesale website using React and Next.js.

BinSentry - Software Developer   Jan 2021 - Apr 2021

- Prototyped a fully web-based augmented reality experience using Three.js and WebXR that dynamically rendered custom 3D models and positioned augmented reality content in the user's reference space.
- Trained custom object detection models with TensorFlow that I used to overlay augmented reality displays onto real-world bins around the client's farm.
- Created a search experience that yielded 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 - Aug 2020

- Developed an end-to-end website publisher with automatic SSL certification and PWA support using Kubernetes, Nginx, Docker, Traefik Reverse Proxy, and AWS Route 53. This core product component was among the first features showcased to clients and investors.
- Created our billing system with Stripe in Go and JavaScript to handle all subscription and invoice payments.
- Designed and built a scheduler micro-service using Python, Go, and RabbitMQ to manage time-sensitive tasks.
- Used DigitalOcean Spaces and Vue.js to create an asset manager that lets users store and edit their files.

BlackBerry - Machine Learning Software Developer   Sep 2019 - Dec 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 and Skills

UWPath 🔗   Jun 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 get automatic degree validation and prerequisite checking to schedule their future terms accordingly.
- Integrated with Firebase authentication to allow users to save plans to their UWPath accounts.

Languages: Go, C++, JavaScript, Python, C

Frameworks and Tools: Kubernetes, React, Docker, AWS, DigitalOcean, Vue.js, Node, Firebase, gRPC

Data Management: PostgreSQL, DynamoDB, SQS, Redis, Elasticsearch, S3, RabbitMQ