

Maxime St-Onge Amoretti

Backend Software Developer

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PROFILE

I am a strong, independent problem solver who loves contributing to vibrant teams. After spending three years working as an actuarial associate in the insurance industry, I transitioned to a career as a software developer.


RELEVANT EXPERIENCE

Co-Creator, Software Developer

present

Otter (otter-framework.dev) 

Otter is an open-source, cloud native framework to easily integrate peer-to-peer video communication within web applications.

- Engineered an auto-scaling serverless infrastructure on AWS to enable WebRTC functionality within web applications (HTTP/WebSocket API Gateways, Lambda functions, ECS with Fargate, and DynamoDB).
- Wrote a CLI tool to automate the provisioning and teardown of AWS cloud infrastructure (AWS CLI).
- Developed a React frontend application for private 1-on-1 meetings hosted by Otter (CloudFront with S3 Bucket), offering low latency audio/video communication, instant messaging, and file sharing.
- Containerized and deployed CoTURN, an open-source implementation of STUN/TURN protocols, in an ECS cluster with Fargate to support Otter's P2P connectivity.
- Built a simple API for developers to integrate Otter's functionality within their web applications.
- Secured HTTP/WebSocket API Gateways by using an API key and JSON Web Tokens.
- Optimized Otter for low latency by reducing the number of reads to DynamoDB.
- Authored a technical case study  on the design decisions and engineering challenges faced while building Otter.

Software Developer, Self-Employed

2022

Developed open-source software, some highlighted applications include:

- ReAck: An application for collecting and inspecting HTTP webhook requests. ReAck is built with React, Node.js (Express framework), PostgreSQL, MongoDB, and Nginx.
- Rate Your Dinner: An application for rating culinary experiences. Built with Pug templating engine, Node.js and PostgreSQL.

Actuarial Analyst - Pricing & Reserving

2019 – 2022 | Toronto

Before changing profession, I worked at RSM Canada, Northbridge Financial Corporation, Wawanesa Insurance, and KPMG Canada as both a consultant and an internal actuarial analyst.

- Audited multiple insurance companies.
- Prepared the valuation for lines of businesses cumulating to more than \$1 billion.
- Collaborated closely with clients to achieve desired goals.
- Built data and financial models to support business requirements.

SKILLS

Frontend

JavaScript, React, HTML, and CSS

Backend

Node.js, Go, Python, PostgreSQL, MongoDB, and RESTful APIs

AWS Cloud

Lambda, ECS, EC2, Fargate, API Gateway, CloudFront, S3, NLB, IAM, and DynamoDB

Other

TypeScript, WebRTC, OOP, HTTP, Docker, Nginx, Git, WebSocket, and Webhooks

EDUCATION

B.Sc. - Mathematics

Université de Montréal

2018