Maxime St-Onge Amoretti *Software Developer*

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EXPERIENCE

Software Developer & Co-Creator, *Otter (otter-framework.dev)* ⌞⌝   Jan 2023 – present

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 (IaC) saving developers over 100 steps.
- 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 by reducing the number of reads to DynamoDB resulting in an 80% decrease in latency.
- Authored a technical case study ⌞⌝ on the design decisions and engineering challenges faced while building Otter.

Software Developer, *Self-employed*   Apr 2022 – Dec 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,   Jan 2019 – Apr 2022 | Toronto
KPMG Canada, Wawanesa Insurance, NBFC, RSM Canada

Actuarial science relies on mathematics, statistics, and finance to quantify risk present in insurance products.

- 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.
- Mentored junior team members during onboarding process.

SKILLS

Frontend	**Backend**	**AWS Cloud**	**Other**
JavaScript, React, HTML, and CSS	Node.js, Go, Python, PostgreSQL, MongoDB, and RESTful APIs	Lambda, ECS, EC2, Fargate, API Gateway, CloudFront, S3, NLB, IAM, and DynamoDB	TypeScript, WebRTC, OOP, HTTP, Docker, Nginx, Git, WebSocket, and Webhooks

EDUCATION

B.Sc. - Mathematics, *Université de Montréal*   2018