

# Bruno Roy

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## Amazon Web Services (AWS) S3 – Software Engineer

2021 - 2025

- Founding member of the [S3 Express One Zone](#) team, building a faster (zonal) S3 written in Rust.
- Technical leader for the Index Control Plane team, which developed durable, highly available and performant distributed systems from inception to production worldwide. The control plane is responsible for monitoring the health of the worker fleet, migrating partitions in the event of failovers, managing heat and more.
- Wrote and reviewed Rust code, with a focus on performant asynchronous software. Led knowledge sharing sessions about Rust best practices.
- Debugged live production systems, safely mitigating customer impact during operational events.
- Drove many of the processes needed to bring a new system to production, such as security reviews, operational readiness reviews, region builds, etc.
- Led design reviews to arrive at consensus through data-driven documents and discussions.
- Mentored several engineers through (and past) the promotion process.

## Amazon Web Services (AWS) Networking – Software Engineer

2019 - 2021

- Developed the software that programs the packet forwarding ASICs that power AWS networking infrastructure (C / C++).
- Onboarded new generations of ASICs, working with different vendors and their SDKs.
- Implemented a new telemetry stack to extract metrics from the switches.

## Internships

- **AWS Networking** (Summer 2018): Implemented a C++ CLI debugging tool to observe the in-memory state of the daemon responsible to program AWS networking ASICs.
- **Amazon** (Fall 2017): Worked on an internal website used to track [Amazon Flex](#) deliveries, using Java.
- **Morgan Stanley** (Summer 2017): Developed a low-latency / high throughput software router used for microservice RPCs.
- **Ericsson** (Summer 2016): Worked on [Eclipse Trace Compass](#), an open-source application for analyzing logs or traces of a system (you can find my commits [here](#)).

## Relevant skills

Rust, C, C++, Linux, distributed systems, durability, consistency models, multi-threading, asynchronous paradigm (Tokio).

## Education

2014 - 2018

Bachelor of Engineering, Software Engineering  
Polytechnique Montreal