

# Eliseo Nathaniel Ruiz Nowell

5 years of Full-Time Industry Experience | Software Engineer | Seattle, WA

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## LINKS

### PORTFOLIO:

<https://ece.uwaterloo.ca/~enruizno/>

### GITHUB:

<https://github.com/NathanielRN>

### LINKEDIN:

<https://www.linkedin.com/in/nathanielruiz/>

## SKILLS

### PROGRAMMING

JavaScript • Java • Python • SQL • C# • C/C++ • Swift • Objective-C

### TECHNOLOGIES

git • AWS • MySQL • Linux • node.js • jupyter • HTML5 • CSS • XML • MatLab

### FRAMEWORKS

numpy • iOS • wpf • Android • Mocha

### LANGUAGES

Spanish (Fluent) • French (Fluent) • Mandarin Chinese (Intermediate)

### TECHNICAL

Level 9 RCM Piano Practical Exam with Honours • RCM Advanced Rudiments Theory • AWS Cloud Practitioner Certificate

## INTERESTS

Arduino • Half Marathon Runner • Chinese Calligraphy

## VOLUNTEER

Church App Developer • Worship Team Piano Player • ECE Mentor

## EDUCATION

### UNIVERSITY OF WATERLOO

B.A.Sc. Computer Engineering  
Artificial Intelligence Option  
6x Term Dean's List (June 2021)

## EXPERIENCE

### Amazon Just Walk Out (JWO) | SDE 2

Aug '22 – Present

#### Streaming Receipt Latency Project Release Lead

- › Designed a new streaming architecture of store orchestrator faster receipt delivery
- › Used Redis streams + Java RxFlowable framework to open and maintain connection of events so that algorithm model services could immediate stream out observations
- › Converted 30s batches design into 3 parallel pipelines coordinating request/response
- › Delivered 50% reduction in receipt latency after coordinating milestones for 4 devs

#### Transformer-Based Algorithm Project Release Lead

- › Led 4 SDEs + 2 researchers during release of new Beverage Encoder/Decoder model
- › Proposed a 4 milestone plan to bring 6,000 of research code to production mainline
- › Added [JEP](#) (in-line Python execution with JavaNativeInterface) to call research code
- › Deployed new algorithm to 200 stores after accuracy evals on 10+ Bev fixture types
- › Saved \$4,000/month and 1 week/month dev effort by deprecating legacy system

#### NeuralNetwork Algorithm Project Release Lead

- › Led a project to replace a RandomForest Classifier with a NeuralNetwork backend  
After release to 171 stores, we saw 68% latency improvement and 25% FP reduction
- › Used memray to debug allocations and reduce max onprem memory usage by 15%
- › Added timestamp cache of features + vectorization to speed-up feature extraction
- › Guided 2 SDEs during 1 week of offline evaluations to prepare for production release

#### Java, Python, CNNs, Computer Vision, DynamoDB, SQL

- › Finished sidecar service to automate new account discovery and provide permissions.  
7 teams adopted the service to automate allow-listing during 171 store launches.
- › Reduced store-op costs by 10% by removing overly aggressive DynamoDB locking

### Amazon AWS X-Ray | SDE 1

June '21 – Aug '22

#### Python, OpenTelemetry, Java, Go, AWS, X-Ray, Docker

- › Developed [multi-threaded long-running performance tests](#) used in 6 GitHub repos
- › Reworked release CI to support ARM architecture [for popular OTel Lambda Layers](#)
- › Wrote [technical posts](#) post prod launch teaching users advanced telemetry concepts
- › [Merged fixes in OSS library](#) to solve issue in team CI thereby reducing code debt
- › Commended by clients and team for meticulous handling of on-call responsibilities

### Amazon | SOFTWARE ENGINEER INTERN

September '20 – December '20

#### Python, OpenTelemetry, Java, Go, AWS, X-Ray, Docker

- › Split OTel Python project into Core/Contrib repositories [over 90+ pull requests](#)
- › Released Python package to [make OTel SDK traces compatible](#) with AWS X-Ray
- › Leveraged Docker to [create Sample Apps](#) showcasing OTel and AWS compatibility
- › [Incorporated automated benchmarking](#) tests to OTel Python GitHub Actions workflow
- › Presented POCs to OTel Python SIG stakeholders and internally to Amazon engineers

### Newfront Insurance | FULL STACK INTERN

September '19 – December '19

#### Typescript, node.js, Heroku, Datadog, Postgres, Salesforce SQL, CricleCI, React

- › Added Auth-N/Auth-Z for all endpoints coupled with redesigned Integration Tests
- › Owned FrontEnd changes using React and node.js to improve Backend performance
- › Ran Salesforce and Postgres SQL queries to quickly repair data integrity issues
- › Quickly learned about Cookie Security to enable SSL validation on all website traffic
- › Built Datadog Metrics Dashboard using tagging to pinpoint node website bottleneck