

# RYO NISHIKAWA

## Cloud Support Engineer (DevOps) at AWS

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## PROFESSIONAL SUMMARY

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Cloud Support Engineer at AWS with 5+ years building scalable automation platforms. Developed Python-based MCP Server reducing troubleshooting time by 45 minutes globally across 5000+ engineers. Expert in distributed systems, Infrastructure as Code, and event-driven architectures.

## PROFESSIONAL EXPERIENCE

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### Cloud Support Engineer (DevOps) | Amazon Web Services (AWS) | 2024 - Present

Build Python automation tools and provide technical support for AWS distributed systems, specializing in Infrastructure as Code and event-driven architectures.

- Built Python MCP servers with FastAPI/asyncio, reducing global troubleshooting time by 45 minutes per case across 5000+ engineers
- Developed distributed CloudTrail analysis system using Python asyncio/DuckDB, processing API failures across multi-region AWS deployments concurrently
- Resolve 20+ monthly technical cases for distributed systems (Lambda, API Gateway), guiding security and performance best practices
- Collaborate on P0/P1 incidents with service teams; author technical documentation and mentor engineers on automation troubleshooting

### DevOps Engineer | Onside | 2023 - 2024

Engineered and maintained CI/CD infrastructure for biosecurity web portal and mobile applications, ensuring regulatory compliance and high availability.

- Optimized TeamCity CI/CD pipelines with parallel execution and resource allocation, reducing deployment time by 40% maintaining 99.9% uptime
- Configured TeamCity agents for multiple concurrent jobs, maximizing infrastructure utilization and improving build throughput for development teams
- Orchestrated complete CI/CD migration from TeamCity/Octopus Deploy to Azure Pipelines, consolidating processes with zero-downtime strategy

### Software Engineer | HealthStream | 2022 - 2023

Built cloud-native data platform with event-driven microservices for healthcare capacity management, processing real-time data streams and feeding SageMaker

models for patient forecasting in HIPAA-compliant environment.

- Architected event-driven data pipeline using Python/Amazon MSK (Kafka), integrating Lambda microservices with SQS for reliable message delivery
- Built distributed data processing system storing events in S3/MongoDB, triggering Lambda functions for real-time analytics handling 100K+ daily events
- Developed Python APIs with authentication, rate limiting, and error handling for data ingestion/retrieval, ensuring HIPAA compliance
- Engineered automated CI/CD pipelines using Infrastructure as Code (Pulumi, Terraform), implementing comprehensive testing and deployment automation

### **Junior Software Engineer | Wyma Solutions | 2021 - 2022**

Developed IoT monitoring platform and computer vision applications for industrial automation, building backend APIs and real-time data pipelines for agricultural machinery.

- Built RESTful APIs using Flask/Django/FastAPI for computer vision backend services, implementing authentication, rate limiting, and comprehensive error handling
- Engineered real-time data pipeline collecting PLC metrics from industrial machinery, streaming to TimescaleDB/InfluxDB via Telegraf for time-series analysis
- Implemented computer vision quality control system using OpenCV, with concurrent Python code (asyncio for IO, multiprocessing for CPU-intensive analysis)
- Deployed microservices using Docker on Oracle Cloud, integrating Grafana dashboards for real-time monitoring of 50+ industrial machines
- Automated infrastructure provisioning using Ansible playbooks, configuring microcontrollers and edge devices across production facilities

## **TECHNICAL SKILLS**

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### **Cloud & Infrastructure**

AWS (Lambda, S3, EC2, MSK, SQS, CloudFormation, CDK), Azure (DevOps, App Service), Oracle Cloud, Infrastructure as Code

### **Programming & Frameworks**

Python (5+ years), FastAPI, Flask, Django, asyncio, multiprocessing, JavaScript, Node.js, Java, C, Vue.js

### **DevOps & Automation**

Docker, Kubernetes, Ansible, TeamCity, GitLab CI/CD, Azure Pipelines, monitoring (Grafana, CloudWatch), alerting

### **Databases & Analytics**

PostgreSQL, TimescaleDB, InfluxDB, MySQL, MongoDB, DuckDB, SQL optimization

### **Distributed Systems & API Development**

Event-driven architecture, microservices, RESTful API design, authentication (JWT, OAuth), rate limiting, message queues, concurrent programming

## EDUCATION

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### Bachelor of Science in Computer Science

University of Canterbury | 2018 - 2020

## AWARDS & RECOGNITION

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### Most Valuable Player Award

*AWS Support Engineering*

Recognized for exceptional productivity and quality, raising the bar for team performance

### Rising Star Award

*AWS Support Engineering*

Awarded for rapid ramp-up and quick adaptation to AWS culture as a new hire

### CloudFormation SME Badge

*AWS Support Engineering*

Deep technical expertise in CloudFormation service architecture, known issues, and complex case resolution

### 2nd Place - HackChch

*48 Hour Smart City Hackathon | 2020*

## CONTENT & CONTRIBUTIONS

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### AWS Knowledge Center Video: "Resolving 'Already Exists' Error in AWS CDK"

URL: <https://www.youtube.com/watch?v=B2XfSe7mQKY>

## LANGUAGES

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- English (Fluent)
- Japanese (Native)

## INTERESTS

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- Rugby & Sports
- Powerlifting/Crossfit
- Neovim & Developer Tools