

# Danyal Khan

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## Skills

**Languages** Rust, Python, Go, C#, TypeScript, C++, Java, SQL, Bash, C  
**Technologies** .NET Core, React, MongoDB, Redis, PostgreSQL, Java Swing, Pandas  
**DevOps** Docker, Kubernetes, Helm, Azure Pipelines, AWS, Honeycomb, Kibana, Jaeger, k6, Gitlab Runners

## Education

### University of Waterloo

BACHELORS OF SOFTWARE ENGINEERING (CO-OP) | CGPA: 83%

Waterloo, Canada

Sep 2020 - Present

### Norwegian University of Science and Technology

EXCHANGE SEMESTER ABROAD

Trondheim, Norway

Aug 2023 - Dec 2023

## Experience

### Amazon Web Services (DynamoDB) - Software Dev Engineer Intern

Seattle, USA

PYTHON, CDK, S3, AWS STEP FUNCTIONS, IAM

May 2024 - Aug 2024

- Automated a manual stress testing procedure for DynamoDB server capacity using **AWS Step Functions** and a **Python** worker to reduce engineering effort from **5 days to 1 day**
- Processed stress test data using **Pandas** and **Matplotlib** to generate performance graphs to optimize server capacity planning in AWS regions, leading to an average of **5%** more capacity across all regions
- Implemented infrastructure as code using **AWS CDK** to provision Step Functions, IAM roles, Cloudwatch logs and alarms, and authentication flows to improve deployment consistency and reusability across all AWS regions

### Haven Studios (Sony PlayStation) - Software Developer Intern

Montreal, Canada

RUST, AWS GAMELIFT, TERRAFORM, REACT, TYPESCRIPT

Jan 2024 - Apr 2024

- Spearheaded & shipped the integration of **AWS GameLift** into our microservices using **Rust** to enable the hosting of game matches on AWS Spot instances to reduce hosting costs by **70%**
- Developed a user-friendly dashboard using **React & TypeScript** to empower support teams to easily scale game server resources in response to fluctuating player demand
- Implemented infrastructure-as-code practices using **Terraform** to automate the provisioning and management of AWS resources such as IAM roles, launch templates, and VPC subnets

### Workleap - Fullstack Developer Intern

Montreal, Canada

.NET CORE, REACT, MONGODB, AZURE PIPELINES

May 2023 - Aug 2023

- Achieved a **15%** growth in conversion to paid plans by integrating free-trials for “add-on” features into the existing subscription model by creating **9 React** components
- Implemented a microservice & worker in **.NET Core** to manage free trial add-ons & expired subscriptions to allow the business to offer **5** new features to customers

### Ubisoft Montreal - Software Developer Intern

Montreal, Canada

GOLANG, POSTGRESQL, REDIS

Sep 2022 - Dec 2022

- Developed & released anti-cheat microservice affecting **90,000+** players per day using **Golang & PostgreSQL** to reset cheaters & rollback cheater-related damages to players for **Rainbow Six Siege (R6)**
- Instrumented anti-cheat microservice with **Prometheus & Jaeger** metrics & made associated dashboards on **Grafana**

## Projects

### CmdStack

RUST, TYPESCRIPT, REACT

- Created a cross-platform command line app using **Rust** that allows developers to maintain an organized & searchable knowledge bank of commands & notes with the aim of replacing Notepad