

Ryan Kann

Software Engineer

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WORK EXPERIENCE

2022–Current

Amazon - AWS Outposts

SOFTWARE DEVELOPMENT ENGINEER I · Arlington, VA 📍



- Developed distribution plane software that establishes and maintains Service Link VPN connections between customer sites and their associated AWS Regions.
- Designed and implemented Region Build Automation feature, replacing one week of manual developer time with an automated system that deploys our service to new AWS Regions within 24 hours.
- Created Anti-Entropy Scanner to perform a health check on our service link in each AWS region within 2 hours. Upon a failed health check, attempts an AWS Step Function recovery workflow and alarms on failure.
- Created "Mechanic" operations tool that allows engineers to safely interact with our service and triage high-severity issues in a timely manner.
- Participated in on-call rotation, mitigating customer impact of time-sensitive events such as restoring deleted Elastic IPs and driving retries for failed API calls from technicians to our service.

2021

Amazon - Alexa Style

SOFTWARE DEVELOPMENT ENGINEER I · Seattle, WA 📍



- Developed Virtual Try-On service code leveraging AWS services to store and manipulate customer images securely.
- Implemented API to allow authenticated users to safely delete customer images and metadata from DynamoDB and the secure Critical Asset Store.
- Modified back-end services to allow integration tests to set-up and tear-down database entries ad hoc, removing stagnant test data from our production environment.
- Created feature for storing Amazon apparel buyability information. Created an S3 bucket with an alarm to trigger a Lambda which processed and queued updates via SQS to a DynamoDB table. Updated the project CDK to deploy these changes to the production AWS environment.

2020

Alarm.com

SOFTWARE ENGINEER INTERN · Tysons, VA 📍



Full stack ASP.NET developer for Alarm.com Dealer Site. Created web page and API for batch-updating Security Panel data.

2017-2018

Vantage Systems, Inc.

SOFTWARE ENGINEER INTERN · NASA Goddard Space Flight Center , Greenbelt, MD 📍



Developed SABLE CLI in C, allowing software and hardware engineers to monitor and run common tooling commands on our FPGA board and PCI bus.

EDUCATION

2021

Computer Science

MCS · University of Virginia
Concentration in Machine Learning and AI



2020

Computer Science

BS · University of Virginia
Thesis in VR Applications in Games and Medicine



LANGUAGES

TypeScript	████████████████████
Java, Kotlin	████████████████████
Bash, Zsh	████████████████████
Python	████████████████████
C#	██████████████████
C, C++	██████████████████
Rust	██████████████████

TECHNOLOGIES

AWS	████████████████████
CDK	████████████████████
Git	████████████████████
VS Code	████████████████████
JetBrains	████████████████████
Node	████████████████████
React	██████████████████

AREAS OF EXPERTISE

Cloud Computing	● ● ●
Computer Networks	● ● ●
Game Development	● ● ●
Software Architecture	● ● ●
Clean Code	● ● ●
Agile Development	● ● ●
Computer Graphics	● ● ●