Zhenyuan (Ryan) Ding

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EXPERIENCE

Amazon (AWS) | Software Development Engineer   May. 2023 - Present

Marketplace Entitlement Service System
- Developed the entitlement service system for Amazon Machine Image (AMI) products. This system enables AWS Marketplace platform to control the entitlement policies more granularly and avoids buyers' unbilled usage which successfully saved 8% - 15% revenue loss in some regions.
- Designed and enhanced an auditor to sweep and audit different entitlement systems (Offers, Agreements, Grants, and Licenses systems) all together. The auditor is implemented using AWS services like AWS Lambda, S3, Step function, DynamoDB, and Simple Queue Service (SQS). And it found thousands of new anomalies for hundreds of customers.

Marketplace Metering Service System
- Added support for metering service system which meters the usage for AWS Marketplace products (SaaS products, Amazon EKS / ECS containers, and AMIs). Fixed dependency issues and launched the system to new AWS regions.
- Led the work to reduce the team's operation workload. Designed and implemented several system components and tools to automate some manual operation work and successfully decreased the amount of trouble tickets by 30%.
- Built an anomaly auditor for metering usage records using AWS resources. The auditor checks the metering history and identifies the potential anomalies which is helpful to avoid generating erroneous bills at the metering stage.

Amazon (AWS) | Software Development Engineer Intern   Jun. 2022 - Sep. 2022

Marketplace Discovery GraphQL Playground API
- Added support to Discovery GraphQL Playground API to manage user configuration using DynamoDB tables and add user-facing API with authentication and authorization control.
- Designed and implemented the database for saving GraphQL schemas using DynamoDB.
- Created backend APIs to validate and process data using J2EE, Spring framework. Added front-end validation components to GQL Playground IDE using TypeScript, React, and Redux.
- Improved API performance and efficiency using cache warming up mechanisms.

Smart Testing Tech | Software Engineer   Jul. 2020 - May. 2021

Laboratory Management Platform
- Built the Laboratory Management Platform which is used by laboratories to test mobile phone signals.
- Designed and implemented the database using PostgreSQL. Developed backend application logic such as data processing, signal testing, and project management systems. Built the integration and canary tests. Added alarms and dashboards for the API and SOPs to check the logs and handle some common issues.
- Designed RESTful APIs and implemented frontend web pages by using Vue, HTML, CSS, and JavaScript.
- Integrated Tencent Cloud APIs and implemented the recognition and authentication component.

EDUCATION

University of California San Diego   Sep. 2021 - Mar. 2023
- *Master of Science in Computer Engineering*

University of Science and Technology Beijing   Sep. 2016 - Jul. 2020
- *Bachelor of Engineering in Computer Science*