Yuzhu(Drew) Zhang

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EXPERIENCE

Software Engineer II AWS Supply Chain November. 2023 - current

- **Designed and implemented the Report & Analytics Service**: Leveraged DynamoDB (DDB), AWS Step Functions, Amazon Redshift, Amazon S3, and Amazon ECS to create a robust analytics service that meets the Supply Planning explainability requirements. This service provided detailed reports and insights, facilitating better decision-making and transparency in supply planning processes.
- **Improved engine algorithm for supply planning**: Enhanced the algorithm to incorporate product expiration data, ensuring more accurate and efficient supply planning. This improvement minimized waste and optimized inventory levels, contributing to more effective supply chain management.

Software Engineer II AWS ECS April. 2020 - October 2023

- Led a group of 2 Software Development Engineers (SDEs) through the complete software development lifecycle, encompassing design, implementation, testing, and successful release of a pivotal ECS service connectivity observability feature. This feature enhanced the ECS Service Connect by providing comprehensive metrics, which were showcased and launched at AWS re:Invent 2023.
- Successfully completed the AWS Security Guardian training, leveraging this knowledge to conduct a thorough security review of the service. This included seamless integration with a security test suite, enhancing the service's coverage and monitoring capabilities, thereby ensuring robust security standards.
- Streamlined the Service Availability Zone (AZ) resilience by automating the AZ failover process. This initiative contributed to improved service availability and reliability, enhancing overall customer experience.
- Delved into and resolved a critical invalid cache issue within the service, implementing effective solutions to ensure accurate and consistent data retrieval.
- Investigated and resolved a service peak thread issue by introducing a bounded thread pool. This strategic intervention optimized resource utilization, leading to enhanced performance and smoother operations during peak loads.
- Significantly contributed to the expansion of the service's footprint by playing a key role in the development and deployment of the service across 3 AWS regions. Pioneered region build automation, drastically reducing the time and effort required for region expansion from 4 weeks to virtually zero.
- Revamped pipeline efficiency by achieving full Continuous Delivery (CD) in the development pipeline. This effort resulted in a substantial reduction of approximately 14 engineer days per month previously spent on manual pipeline releases.

Software Engineer AWS SSM April. 2019 - April. 2020

- Spearheaded the comprehensive re-architecture of the SSM platform, strategically transitioning critical functionalities such as throttling, authentication, authorization, and activity routing from the Frontend platform to internal microservices. This strategic shift empowered individual microservices teams, enabling them to autonomously manage their throttling, authentication, and authorization processes. Consequently, this initiative significantly alleviated the workload burden on the frontend platform, fostering operational efficiency and seamless collaboration across teams.

EDUCATION

Clemson University, Clemson, SC Dec. 2018
Master of Computer Science

University of Science and Technology of China, Suzhou, China Jul. 2020
Master of Software Engineering

Shandong University, Jinan, China Jul. 2016
Bachelor of Digital Media Technology

SKILLS

- Languages: **Java,** Python, Ruby, C, C++
- Frameworks: **AWS, Spring,** SpringMVC, pytest, Struts, Hibernate, Mybatis, BootStrap
- Tools: AWS DynamoDB, AWS Kinesis, AWS CloudWatch, AWS S3, **MySQL**, **Redis**, Git, Linux, Docker