

CHAKRADHAR GUMMIDELA

✉ chakradhargummidela@gmail.com

☎ +1 (979)-450-8369

in [LinkedIn](#)

[Github](#)

Highly motivated Software Development Engineer with expertise in AWS and building scalable cloud-based solutions.

WORK EXPERIENCE:

Software Development Engineer, [Amazon.com Services LLC, Seattle, USA](#)

Sep 2022 - Present

Amazon.com Pet Pharmacy Team

- Developed service functionality and a client following pub-sub architecture using **AWS SNS** and **AWS SQS** to send order related emails to customers with P95 latency less than **300ms**.
- Managed end-to-end capacity planning, estimation, and ensured resilience of the system by implementing **stress and chaos testing** for Thanksgiving and Christmas sales, ensuring **100% system uptime** during peak demand.

Prime Air Data and Computation Team

- Coded an **AWS Lambda** to enable job cancellation in the custom computation cluster via CLI, leveraging **AWS SSM** and reducing computation **costs by 10%** through elimination of unnecessary processing.
- Formulated and developed a workflow orchestration engine for custom compute cluster, by introducing a dependency structure that is stored in **AWS Neptune**, enabling users to chain jobs, increasing efficiency by **27%**.
- Engineered a deletion engine leveraging **AWS Athena** for precise selection and removal of user-generated content from a **90PB S3 object store**, ensuring **zero downtime** and annual savings exceeding **\$200,000**.

Software Development Engineer, [EA Games, Hyderabad, India](#)

Jul 2020 - Aug 2021

Development of SDK to capture game crashes

- Constructed a new SDK in **C++** facilitating game developers to capture and report **97%** of all the non-fatal errors
- and **95%** of all the fatal crashes, which resulted in a **7%** decrease in user generated tickets.
- Built an extensive test suite with a coverage of **87%**, automated using **GitLab CI/CD** pipelines.

Software Engineering Intern, [NVIDIA graphics, Bangalore, India](#)

Jan 2020 - Jun 2020

- Architected a new file system test bench for an autonomous car OS and automated its build process, incorporating a local mirror for libraries, which improved build turnaround time by **20%**.

Software Development Intern, [MechMocha Game Studios, Bangalore, India](#)

Jul 2019 - Dec 2019

- Enhanced backend service efficiency by migrating to **gRPC** with **Protobuf** from traditional RPC, resulting in approximately **30%** reduction in client-server communication latency while maintaining backward compatibility.

PROJECTS:

Developing a workflow orchestrator, Software Development

Mar 2023 - Jul 2023

- Designed and implemented a workflow orchestration system for custom compute cluster, enabling complex job dependencies and automated execution of millions of jobs monthly.
- Authored 5 new **APIs** and architected a Workflow Handler **Lambda** to parse and convert workflows, integrating **AWS Neptune** for efficient dependency storage and management.
- Leveraged **AWS DynamoDB**, **AWS SNS & AWS SQS** for workflow state tracking and job triggering, eliminating manual intervention while keeping the job triggering time under **200ms**.

Engineered a Deletion Engine to save S3 storage costs, Software Development

Jan 2024 - Mar 2024

- Collected a list of files using **AWS Athena** to query **90 Pb S3 bucket** manifest files to filter deletable files.
- Leveraging a highly parallelizable approach, I created a program that reduced file and folder deletion processing time **by 10 fold** from **23 days to 2 days**, while also being below S3 throttling limits.
- Significantly reduced the probability of S3 bucket partitioning-related downtime during bulk deletion operations by implementing a randomized deletion order, resulting in **zero downtime**.

Crafted a method to cancel running jobs in compute cluster, Software Development

Jan 2024 - Mar 2024

- Established a solution to use **AWS SSM** and **AWS Lambda** to allow users to cancel unwanted jobs via CLI
- This optimization reduced the cost by **10%** by freeing **1000's of compute hours** per cluster.

TECHNICAL SKILLS:

Programming languages : Java, Python, Go, TypeScript, JavaScript, Kotlin, C++, Frontend, Backend, Fullstack

Databases: MySQL, PostgreSQL, AWS DynamoDB, AWS Neptune graph DB, NoSQL, SQL.

Cloud Tools: AWS, Kubernetes, Docker, CI/CD Pipelines, Microservices, AWS SSM, AWS CDK Infrastructure.

Communication Protocols: Websockets, gRPC, GraphQL, REST API, API Gateway, AWS IAM

EDUCATION:

- **University of Chicago, Chicago, Illinois**
Master of Science in Computer Science, GPA: 3.9

Sep 2021 - Sep 2022

- **BITS Pilani, Hyderabad, India**
Bachelor of Engineering (Hons.), CGPA: (7.66/10.0)

Aug 2015 - Aug 2020