HARIKA TANNERU

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Dynamic and results-oriented individual with a passion for building scalable recommendation systems and high-performance serving infrastructure. Seeking a challenging role where I can leverage my programming skills and collaborate with cross-functional teams to optimize and evolve systems to meet increasing user demands.

**EDUCATION**

**Master’s in computer technology - Eastern Illinois University | Charleston, IL, USA (Graduation-May 2024)**

*Relevant Coursework: Programming for datascience, BigData, Multimedia web technology, Advanced database technology, Network advanced data communications*

**Bachelor’s in computer science and engineering - CMR Technical Campus | Kandlakoya, TS, India-2018**

*Relevant Coursework: C, Java, Cloud Computing, DBMS, Software Engineering, Design and analysis of algorithm*

**CERTIFICATIONS**

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| * AWS Cloud Practitioner * AWS Cloud Quest: Cloud Practitioner |

**PROJECTS**

**Cloud Cost Optimization:**

* Implemented an automated solution using AWS Lambda to identify and delete stale Elastic Block Store (EBS) snapshots, resulting in significant cost savings and improved resource management.
* The Lambda function fetches all EBS snapshots owned by the same account ('self') and also retrieves a list of active EC2 instances (running and stopped). For each snapshot, it checks if the associated volume (if exists) is not associated with any active instance. If it finds a stale snapshot, it deletes it, effectively optimizing storage costs.

**VPC with servers in private subnets and NAT:**

* Designed and implemented a Virtual Private Cloud (VPC) architecture for a 2-tier application, utilizing private subnets for enhanced security and network isolation.
* Configured a NAT Gateway within the VPC to allow servers in the private subnets to access the internet while maintaining a secure network environment.
* Implemented auto-scaling groups to manage the lifecycle of EC2 instances running in the private subnets, ensuring scalability and high availability of the application.

**Smart Room:**

* Developed a Smart Room pilot application utilizing Arduino microcontrollers, GSM modem, LM35 temperature sensor, DC motors, and IR sensors to create an interactive intelligent environment, enhancing energy efficiency and user convenience.
* Implemented Arduino IDE to program functionalities such as light and temperature sensing, automatic device shutdown, and real-time data transmission via GSM modem, demonstrating proficiency in hardware integration and IoT application development.

**Amazon Web Services, Self-Learning**

* Engaged in independent learning initiatives to acquire expertise in cloud-native platforms, API design, and data analytics at scale, including proficiency in CI/CD tools, cloud platforms, and automation scripting. Demonstrated strong understanding of AWS services, including Elastic Block Store (EBS) and Elastic Compute Cloud (EC2), for infrastructure management and optimization.
* Proficient in designing and implementing AWS VPC architectures for secure and scalable cloud applications.
* Experience with configuring NAT Gateways, auto-scaling groups, and load balancers in AWS environments.
* Familiarity with network monitoring and optimization tools such as AWS CloudWatch for performance tuning and resource management.
* Proficient in AWS Lambda for serverless computing and automation.
* Expertise in AWS SDK and APIs for resource management and automation tasks.

**PROFESSIONAL SUMMARY**

**Quality Analyst - Amazon, Hyderabad, India (Oct 2018 -Aug 2022)**

* As a Quality Analyst, managed the AIC program (Auditing, Insights, and Compliance) and Root Cause Analysis.
* Developed workflows utilizing SharePoint Designer streamlining secure place to access the confidential data.
* Led brainstorming sessions and facilitated discussions to conceptualize innovative solutions for addressing identified challenges and enhancing operational efficiency.
* Collaborated with cross-functional teams to identify improvement areas within existing policies and processes, fostering a culture of continuous improvement. Led daily skill hurdles to promote collaboration and knowledge sharing among team members, enhancing overall team effectiveness.
* Utilized data mining techniques to analyze quality defect data, identifying root causes and contributing factors.
* Conducted calibration sessions with operations and training teams. Provided knowledge sessions to associates and trained newly hires.
* Evaluated work done by associates to ensure compliance with established quality standards

**SKILLS**

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| * Languages: Python, Java, Bash. | * Cloud Technologies and Tools: IAM roles, AWS Lambda, EBS, |
| * Web Technology: HTML, CSS. * Database: MySQL, NOSQL | AWS CloudFormation, S3, AWS CloudWatch, CI/CD, Terraform, Kubernetes, Docker, load balancers, RDS, CloudFormation templates, Amazon managed streaming for kafka |
| * Networking Protocol: TCP/IP, DNS * OS: Windows, Linux * Big Data Technologies: Hadoop | * Version control systems: Github * Computer Science Fundamentals: Data Structures, Algorithms, Object-Oriented Design and relational database design, Software Development, Performance Testing, * Additional Skills: MS office, Communication skills, Data access management. |