Thakur Aman Singh

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Skills

Languages: Python, C#, JavaScript, TypeScript, SQL

Technologies & Tools: AWS, EC2, DynamoDB, S3, SQS, Lambda, Athena, Elasticsearch, Kubernetes, Docker, Kafka, Angular, ReactJS, Dot Net, Power Platform, Azure, API , MVC

Work Experience

Cognizant, Chennai   Oct 2024 - Present

Software Developer

- **Optimized Load Balancing for High-Traffic Service**: Identified a performance bottleneck where a single EC2 instance was handling disproportionate traffic, resulting in an average response time of **500ms**. Designed and implemented an **AWS Application Load Balancer (ALB)** strategy with **Auto Scaling Groups**, distributing traffic evenly across multiple instances. Post-deployment, the average response time dropped to **120ms**, significantly improving user experience and system reliability.

- **DOT NET Microservice Enhancement**: Refactored a legacy .NET monolith into a modular microservice architecture using **.NET 7**, **Docker**, and **AWS ECS**. Improved deployment speed by 60% and enabled independent scaling of services. Integrated **AWS CloudWatch** for real-time monitoring and **AWS CDK** for infrastructure as code, streamlining CI/CD workflows.

- **Tech Stack**: .NET 7, C#, AWS (EC2, ALB, ECS, CloudWatch, CDK), Docker, GitHub Actions, SQL Server, REST APIs

Education

Anurag University, Hyderabad   Jun 2020 - Jun 2024

B. Tech in Artificial Intelligence

Relevant Coursework: Object Oriented Programming, Databases, Discrete Math, Data Structures and Algorithms, Operating Systems, Computer Networks, Machine Learning, Data Mining, Advance Data Structures and Algorithms, Information Retrieval, Image Processing

Project Work

Alternative Routes in Road Networks   *(2024)*

- Simulated traffic-aware routing using **Dijkstra's algorithm** to find optimal paths in a road network.

- Prevented vehicle collisions by dynamically adjusting speeds. Built using **C#** and **OpenGL**.

Clustering SSH Attacks *(2023)*

- Applied **KMeans clustering** to analyze SSH session attacks using **pcap** files.

- Used **Java** and **WEKA** to determine optimal cluster sizes and group similar attack patterns.

Freelancing Projects

Learning Destiny – Relation-Based Learning Platform

- Built a scalable learning platform using **Firebase**, **Angular**, and **TypeScript**.

- Implemented real-time data sync, user authentication, and dynamic content delivery for personalized learning paths.

Real-Time Courier Tracking Application

- Developed a logistics tracking system using **Angular**, **SQL Server**, and **.NET Core**.

- Enabled real-time order tracking, status updates, and delivery route optimization.

Additional Technical Skills

- **Salesforce Ranger**: Achieved **Salesforce Ranger** status, demonstrating advanced proficiency in Salesforce development and architecture

- **Mentor at Scaler Academy**
  Guiding students and professionals in mastering **data structures**, **algorithms**, and **system design**. Conducting mock interviews, code reviews, and personalized learning plans