

# Thakur Aman Singh

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## Skills

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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

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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

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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

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### 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

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### 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

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- **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