

# AMLAN ALOK

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Website

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## Education

**University of Texas**, Arlington – M.S. in Computer Science, Specialization in AI, GPA: 4.0 May 2023

- Coursework: Machine Learning, Neural Networks, Artificial Intelligence

**Shiv Nadar University**, India – B.Tech. in Electronics and Communication Engineering May 2017

## Skills

**Languages:** Python, Java, JavaScript, SQL, HTML, CSS  
**Technologies:** Spring Boot, Docker, React, AWS, GCP, Flask, Django, Kafka, Spark  
**Databases:** MySQL, S3, Redis, AWS RDS, NoSQL  
**Tools:** JPA, Hibernate, Git, Terraform, Jenkins, Postman, Splunk, New Relic

## Work Experience

**Full Stack Developer**, University of Texas — Arlington (Remote) July 2023 – Present

- Migrating legacy PHP codebase to React and Spring Boot to increase website speed

**Graduate Teaching Assistant**, University of Texas — Arlington Aug 2022 – May 2023

- Awarded Outstanding Graduate TA out of 80 candidates; courses: graduate-level Machine Learning and Databases

**Software Engineer**, Cognizant — Bangalore, India Feb 2018 – Jan 2021

### ***Batch Job — Automated Credit Card Dispute Resolution (Telstra Payments Team) — Python, Java***

- Reduced customer service agent workload by 70%, saving ~\$1M/year for Telstra by designing an AWS-based automated workflow to adjudicate disputes in favor of merchants or customers based on established business rules
- Developed a Java microservice that integrated with Braintree Payment Gateway APIs to fetch and update disputes
- Orchestrated AWS Step Function workflows using AWS Lambda and Python to process disputes
- Created REST APIs with Java and Spring Boot to store and query data from MySQL database

### ***ETL Job — Transaction/Dispute Reporting and Customer Data Migration (Telstra Payments Team) — Python***

- Created an AWS data warehouse to store all transaction, dispute, and customer data
- Designed an event-driven serverless ETL job using AWS Glue for data ingestion, reducing operating costs by 80% when compared to the previous PCF-deployed microservice-based architecture
- Implemented AWS Lambda with SFTP to retrieve reports (.CSV files) from the payment gateway and store them in S3
- Developed ETL scripts using AWS Glue to clean, filter, validate, and store records in the data warehouse from S3
- Collaborated with Fraud, ML, Data Retention, Legal, Finance, and Data Science teams to set up AWS data pipelines for delivering tailored transaction/dispute data from the data warehouse to downstream teams

### ***Website — Registration Portal for Skill-based Workshops (Internal Project) — Java, JavaScript***

- Created an upskilling platform for Cognizant employees to register for skill-based workshops conducted by IT trainers
- Built front-end React components and backend REST APIs on Spring Boot to deliver features
- Improved REST APIs by optimizing SQL queries, database indexing, and implementing caching

## Projects

**Housing Portal — React, Java, Spring Boot, Kubernetes, GCP** GitHub

- Allowed students to find accommodation, manage bills, and chat with residents
- Developed front-end and back-end apps, containerized them, and deployed them on Kubernetes in GCP (GKE)

**Connect 4 AI — Python** GitHub

- Created an AI agent to play Max Connect 4 game using depth limited min-max search with alpha-beta pruning