

# Arpita Chowdhury

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## Experience

### Texas State University

Front Desk Assistant (Student Employee)

Aug 2024 – May 2026

- Provided front-desk operational support for a high-traffic residential community, assisting residents, staff, and visitors with daily service requests and access issue.
- Resolved real-time problems related to building access, package tracking, and resident inquiries by coordinating with maintenance and housing staff.
- Maintained accurate logs for mail, packages, and incident reports, ensuring confidentiality and adherence to university security policies.
- Supported smooth residence hall operations by communicating clearly with residents, escalating issues when needed, and following through until resolution.
- Collaborated with team members across shifts to ensure consistent service and coverage during peak hours and high-volume periods.
- Adapted quickly to new systems, procedures, and policies while balancing academic responsibilities and part-time work.
- Demonstrated professionalism, reliability, and strong communication skills in a customer-facing environment.

## Projects

- Multi-Region Application on AWS:** Deployed multi-region architecture to improve availability and latency documented failover behavior and regional routing patterns.
- CloudFront Origin Failover:** Implemented edge-based failover and health-check routing using CloudFront origin groups to maintain service continuity.
- Multi-Cloud Disaster Recovery with Pulumi (AWS + GCP):** Built infrastructure-as-code disaster recovery workflows with failover testing and observability dashboards.
- Cloud Support Ticketing Simulation:** Simulated real cloud incidents and documented triage, root cause analysis, resolution, and prevention steps.
- CI/CD Pipeline on AWS:** Implemented and troubleshooted CodeBuild and CodeDeploy pipelines, resolving IAM and deployment failures.
- VPC & EC2 Troubleshooting:** Diagnosed and resolved connectivity issues across subnets, route tables, and security groups in AWS environments.
- Kubernetes Deployment:** Deployed containerized applications and managed Kubernetes manifests for application rollout.

### Thesis: AI-Powered Bangla News Classification (August 2022 – February 2023)

- Built a machine learning model for Bangla news classification using deep learning techniques, achieving **92% accuracy** on test data.
- Collected and cleaned **over 50,000** news articles from online portals using automated web scraping.
- Applied NLP techniques such as tokenization and stemming, reducing preprocessing time by **30%**.
- Optimized model training, reducing computation time by **40%** through data augmentation and hyperparameter tuning.
- Tools Used:** Python, TensorFlow, NLTK, Pandas, NumPy, Regular Expressions

## Skills

**Cloud & DevOps:** AWS (EC2, VPC, S3, CloudFront, IAM, CloudWatch, App Runner), CodeBuild, CodeDeploy, CodePipeline, Pulumi, Terraform, CloudFormation, Docker, Kubernetes

**Networking & Security:** VPC architecture, Subnets, Route Tables, Security Groups, NACLs, Load Balancing, IAM policies, Monitoring & Logging

**Language & Tools:** Python, SQL, Bash (basic), Git, GitHub, Linux, VS Code

## Certificates

**AWS Solutions Architect Associate (SSA-C02)** - In progress | **AWS CloudOps Engineer Associate (SOA-C03)** - In progress

## Education

### Chittagong Independent University

B.Sc. in Computer Science and Engineering

### Texas State University

MS in Computer Science (Non-Thesis Concentration)