# Afreen Ahmed

979-599-3894 | mail.afreenahmed@gmail.com | linkedin.com/in/afreen-ahmed-2001 | github.com/AfreenAhmed405

## EDUCATION

**Texas A&M University, College Station, TX** — College Station, TX
*Master of Computer Science — GPA: 3.8/4.0* — *Aug 2024 – May 2026*

**Vellore Institute of Technology** — Vellore, India
*Bachelor of Technology in Electronics and Communication Engineering — GPA: 9.4/10.0* — *Aug 2018 – May 2022*

## TECHNICAL SKILLS

**Languages**: Java, Python, SQL, JavaScript, HTML, CSS, PHP
**Frameworks & Libraries**: React, SpringBoot, TensorFlow, PyTorch, JUnit, Mockito, Maven, NodeJS, Spark
**Developer Tools & Platforms**: AWS, PostgreSQL, Oracle, Google Firebase, Git, Postman, Jenkins, Docker, Splunk, Grafana
**Other**: Agile, JIRA, Microsoft Office Suite

## EXPERIENCE

**Software Engineer Intern** — May 2025 - Aug 2025
*InfraFrame - TTI* — *College Station, TX, USA*
- **Built core infrastructure and a full-stack web app (React & Java Spring Boot) on AWS** for an early-stage pavement analysis startup, enabling rapid product development.
- **Architected an event-driven backend with RabbitMQ**, scaling to **10K+ concurrent users**.
- **Generated synthetic datasets using Stable Diffusion & prompt engineering**, validated with evaluation metrics for realism, and **deployed ResNet models into production**.
- **Streamlined deployments by containerizing services (Docker) and orchestrating with AWS ECS and Lambda**, cutting deployment time by **30%** and improving resource efficiency.

**Software Engineer** — Jul 2022 - Aug 2024
*JP Morgan Chase & Co.* — *Bengaluru, KA, India*
- **Developed new features and resolved critical defects** in internal accrual-calculation web applications using **Java, Spring Boot, React, Oracle SQL**, improving system accuracy, performance, and reliability across multiple trading workflows.
- **Created and optimized downstream data feeds with Spark SQL,** enhancing data processing efficiency, reliability, and delivery speed for trading systems.
- **Architected and executed migration of a legacy application to microservices on AWS (EC2, S3, RDS, IAM)**, reducing infrastructure costs and improving scalability, fault tolerance, and deployment efficiency.
- **Led release management and production support for 42 distributed services**, improving on-time delivery by 25% and earning a Recognition Scroll Award

**Software Engineer Intern** — Jan 2022 - Jul 2022
*JP Morgan Chase & Co.* — *Bengaluru, KA, India*
- Designed a self-service tool with **ReactJS, Java, and Spring Boot** to automate repetitive tasks in release management, reducing technical toil by 90% and saving 10+ hours weekly.
- **Conducted vulnerability scanning and remediation across 40+ services**, enhancing security posture.

**Software Engineer Intern** — May 2021 - Jul 2021
*Hewlett Packard Enterprise* — *Bengaluru, KA, India*
- Automated **XSS vulnerability** scanner tool using **Python and XSSer**, demonstrated on sample web application and managed student program focused on making technology more accessible to students.

## PROJECTS

**Smart Recipe Assistant** | *ReactJS, Java Spring Boot, PostgreSQL, AWS, LLM, Python* — Aug 2025
- Implemented an **NLP-powered query engine** using Python and OpenAI API to parse unstructured ingredient inputs, normalize them into a structured schema, and dynamically generate personalized recipe recommendations.

**LLM-Powered Pet Medical Report Summarizer** | *Python, Flask, FAISS, PubMed API* — Mar 2025
- Built a **Flask web app** extracting medical test values from reports and generating user-friendly explanations using **RAG with hybrid BM25 and FAISS retrieval**, increasing report accuracy by 15%.

## CERTIFICATES AND AWARDS

**Certification**: AWS Certified Solutions Architect (Link), AWS Cloud Practitioner (Link), CISCO Networking
**Awards**: Recognition Scroll Award Q2 2024 (JPMC), SepAThon 2022 (JPMC) – Winner (Link), Code for Good Hackathon 2021 (JPMC) – Winner (Link), Markytics Hack 2019 - Best UI/UX, MathaThon 2018 (SAS-VIT) - Winner