

# ANEES MOHAMMED

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## EDUCATION

### Rutgers University

December 2025

Master of Information Technology (Data Science and Machine Learning)

4.0/4.0

**Coursework:** Reinforcement Learning, Deep Learning and Neural Networks, Algorithmic Machine Learning, Data Structures and Algorithms, Software Development, Data Mining, Object Oriented Programming, Operating Systems

### Birla Institute of Technology and Science ,Pilani

August 2018 - August 2022

B.E. Electrical and Electronic Engineering

3.6/4.0

## EXPERIENCE

### Slice

June 2022 - August 2024

Software Developer

- Introduced Account Aggregator SDK to acquire users bank and credit details using Android native Kotlin for Slice mobile application, improving exchange of financial data and boosting gross total value by \$100M
- Drove rapid user adoption of the Account Aggregator feature, achieving a 60% adoption rate within the first 2 months of launch. This successful feature rollout streamlined financial data exchange and resulted in a 45% increase in user engagement with core financial features within the app
- Engineered a suite of reusable UI widgets, driven by a backend architecture leveraging AWS and Kubernetes for services and deployment orchestration, and built with Java REST APIs. This backend-driven UI system enabled seamless integration across 5+ platforms, cutting new feature development time by 40% and improving consistency in user experience
- Reduced launch time from 7 to 1.5s, promoting retention by 30% through lazy initialization with Dagger and ProGuard
- Built a Retrieval-Augmented Generation (RAG) pipeline for an enterprise search engine using LangChain, LLamaIndex, and GPT-3.5, improving query accuracy by 45% and reducing response time by 60%
- Collaborated with engineering to design and present a semantic search mechanism using FAISS(Facebook AI Similarity Search). Clearly explained its benefits for efficient indexing and large-scale structured and unstructured data retrieval, achieving 76% optimized search performance for large datasets
- Deployed and scaled the enterprise search engine on AWS with monitoring via Prometheus and Grafana, ensuring 99.9% uptime and processing over 20,000 queries daily

### Samsung

July 2021 - December 2021

Software Engineering Intern

- Spearheaded development of a GPU-based proof of concept for 5G antenna signal transmission to transition from a CPU-based architecture, leading to a 300% reduction in organizational costs
- Implemented CUDA for parallel computing, leveraging Nvidia Nsight to debug and optimize performance, and utilized GCC to improve processing speed by 60%
- Optimized thread hierarchy and memory layout, resulting in substantial improvements in processing efficiency , slashing compile time of complex files up to 400%
- Achieved a drastic runtime reduction from 12 to 0.23 seconds by implementing containerized development using Docker

## RELEVANT PROJECTS

### Facial Emotion Recognition | OpenFace, TensorFlow, NumPy, ResNet

September 2024

- Created a deep learning model capable of detecting and categorizing human emotions with an accuracy of 87%
- Employed genetic algorithms to train and validate models; extracted Action Units via OpenFace to generate a CK+ dataset of 2.1M test faces

### Depth Regression Model for RGBd Images | Python, TensorFlow, CNNs, NumPy, Keras

October 2023

- Designed and implemented an ensemble model combining GlobalDepthNetwork (global scene structure) and Local-GradientNetwork (fine-grained spatial details) for high-accuracy depth prediction
- Achieved a performance accuracy of 92% using MSE, RMSE, and MAE metrics
- Utilized TensorFlow/Keras for the neural network, training on an RGBd dataset and visualizing depth maps for analysis

## SKILLS & CERTIFICATIONS

- Languages:** Python, Java, Kotlin, C++, Golang, Swift, JavaScript, CUDA, Rust, Solidity, React, Angular, Linux
- Software Development Tools:** AWS, Git, Kafka, MapReduce, MySQL, Databricks ETL, Docker, Postman, Fire-base, VSCode, Grafana, Snowflake, YAML, MongoDB, Jenkins, Redis, Apache Spark, Hadoop, RabbitMQ
- ML Techniques:** TensorFlow, OpenFace, Computer Vision, Genetic Algorithms, NLP
- Cloud/DevOps:** Kubernetes, CI/CD Pipelines, AWS for Backend, Containerization, Azure