

# Muhammad Ahmed

Los Angeles Metropolitan Area, CA, USA

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## Education

### California State University, Long Beach

Master of Science in Computer Science

**Expected June 2027**

Long Beach, CA

- **Coursework:** Artificial Intelligence, Distributed Computing, Computer Vision, Natural Language Processing

### National University of Computer and Emerging Sciences (FAST-NUCES)

Bachelor of Science in Computer Science

**July 2023**

Lahore, Pakistan

- **Coursework:** Data Structures, Algorithms, Software Design, Compiler Construction, Databases, Networks

## Technical Skills

<b>Languages:</b>	Python, JavaScript (ES6+), TypeScript, Java, C/C++, SQL, NoSQL
<b>Frameworks:</b>	Django, Node.js, React.js, TensorFlow, PyTorch, LLM, RAG, Transformers
<b>Cloud &amp; DevOps:</b>	AWS, GCP, Docker, Kubernetes, Redis, Kafka, RabbitMQ, Linux, CI/CD
<b>Tools:</b>	Git, Postman, REST APIs, GraphQL, OpenTelemetry, Auth0

## Experience

### Paismo HR

Software Engineer

**Dec 2024 – July 2025**

Los Angeles, CA

- Built and deployed a scalable **microservice** for attendance policy management, reducing latency by **80%** and improving reliability for 600+ enterprise users.
- Implemented **machine-to-machine authentication** using Auth0 and enhanced observability with **OpenTelemetry** across distributed systems.
- Developed a **Retrieval-Augmented Generation (RAG)** pipeline for semantic resume-job matching, improving employer retention by **20%** and sales by **15%**.

### xiQ, Inc.

Software Engineer

**Jul 2023 – Dec 2024**

Redwood City, CA

- Optimized a **high-traffic** product module end-to-end (React UI + Django/SQL APIs) managing **100K+** contacts; added pagination and caching to deliver **40% faster** load times and cut support tickets by **25%**.
- Engineered a **buyer analytics feature** to track user behavior across B2B clients, improving conversion accuracy by **30%** and lowering bounce rate by 20%.
- Partnered with product, design, and data to ship new backend APIs and responsive UI; owned CI/CD, feature flags, and scalable rollouts under tight deadlines.

## Projects

### Federated Learning on CIFAR-10 — IID vs Non-IID

Python, TensorFlow, Flower (FLWR), Ray, NumPy, scikit-learn, Matplotlib

**Sep 2025 – Oct 2025**

- Implemented server-client FL (FedAvg) with IID and Dirichlet Non-IID partitions and reproducible seeding.
- Benchmarked federated vs “blind” local baselines with matched compute; analyzed accuracy/loss, confusion matrices, and predictions.

### RoboInk – Automated 3D Card Printing System

Django, AWS (S3, SQS, RDS), SVG, G-code

**Jun 2024 – Aug 2024**

- Automated 3D card printing for an online retailer, reducing manual intervention by **90%** and improving task reliability to 99%.
- Integrated AWS services for end-to-end pipeline management from checkout to 3D card print execution.

## Achievements

- **Winner, Paismo Hackathon 2025** – Built an AI-powered semantic resume matcher using vector embeddings and retrieval-based NLP.
- **FAST-NUCES - 5× Dean’s List**; top 5% of CS cohort.