

Aziz Ahmed

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U.S. Permanent Resident — No Sponsorship Required

EDUCATION

Old Dominion University

Expected 2028

Master of Science in Data Science & Analytics (AI/ML Concentration)

BRAC University

Bachelor of Science in Computer Science & Engineering

Graduated Mar. 2025

CERTIFICATIONS

Oracle Cloud Infrastructure Generative AI Professional (OCI GenAI)

EXPERIENCE

Software Engineer

Mar. 2025 – Present

Qubits Limited

Remote

- Increased system reliability by 40% by implementing DevSecOps practices including automated CI/CD pipelines on GitHub Actions, containerized microservices via Docker, and automated testing for consistent deployments.
- Wrote and tested backend API endpoints, debugged failures, and improved system performance through iterative feedback and code reviews.

Software Engineering Intern

June 2024 – Aug. 2024

Qubits Limited

Dhaka, BD

- Built and integrated backend APIs using Node.js and Express, reducing manual report generation time by approximately 20%.
- Collaborated in a team of 5 developers within an Agile environment, contributing to weekly sprints, code reviews, and version control using Git.

Artificial Intelligence Research Assistant

July 2023 – Mar. 2024

BRAC University

Dhaka, BD

- Researched CNN-based VIA screening, fine-tuning ResNet50 and optimizing CNN pipelines to cut diagnostic error from 33% to 11% on clinical datasets.
- Designed and implemented computer vision pipelines for cervix image analysis, including preprocessing, segmentation, and feature extraction, improving F1-score by 14 % and enhancing cross-dataset generalization.
- Conducted model interpretability and ablation studies, documenting findings for internal publication and contributing to the lab's open-source prototype.

PROJECTS

Clinical NLP Pipeline | *Python, Stanza, HuggingFace, NLP, NER, RxNorm API, Gemini*

Feb 2026 – Present

- Engineered a 7-stage orchestrated NLP pipeline over 1,000 patient records using Stanza i2b2 (MIMIC-III aligned), extracting 55,355 entity mentions across 4 clinical categories while eliminating LLM dependency at 6 of 7 stages, reducing inference cost to \$0 with full reproducibility.
- Integrated ICD-10-CM and RxNorm ontologies via NLM public APIs for standardized medical coding (82.5% exact coverage); delivered a Plotly dashboard and dual-mode chatbot (rule-based + LLM fallback).

VIAstra | *Computer Vision, PyTorch, Keras, TensorFlow, Resnet50*

June 2024 – Present

- Developed VIAstra, a consultant-led AI product that evolved from academic research into a production-grade cervical cancer screening system deployed for a clinical client.
- Built a deep learning-based computer vision model to analyze VIA (Visual Inspection with Acetic Acid) images, reducing subjectivity and error rates by up to 18%.

BurnOut | *LangChain, Agentic AI, Tool-Calling, DataStax, OpenAI API*

Jul. 2023 – Jan. 2024

- Engineered an agentic AI workflow using LangChain and OpenAI GPT models with tool-calling and autonomous task orchestration to generate personalized workout plans, macro estimations, and adaptive fitness logic.

TECHNICAL SKILLS

Languages: C#, .NET, ASP.NET Core, Python, TypeScript, JavaScript, Java, HTML, CSS, SQL, T-SQL, Swift

AI/ML: PyTorch, TensorFlow, Scikit-learn, HuggingFace Transformers, LangChain, LlamaIndex, RAG, Agentic AI, LLM Fine-Tuning, Clinical NLP, Computer Vision, MLOps, Vector Databases.

Frameworks & Databases: FastAPI, Flask, Django, Node.js, Express.js, Spring Boot, PostgreSQL, MongoDB.

Tools: Git, Docker, Kubernetes, GitHub Actions, Multithreading Programming, AWS, Terraform, Postman, REST APIs, DSL Compilers, Agile.