

Atharva Biyani

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Education

The University of Texas at Dallas

Expected Graduation May 2025

Bachelor of Science, Computer Science

Richardson, TX

- GPA: 3.74/4.0
- Involvements: Association for Computing Machinery (Research), AWS Cloud Club (Operations Director), Artificial Intelligence Society (AI Dev)
- Relevant Coursework: Data Structures and Algorithms, Operating Systems, Computer Architecture, Database Systems, Software Engineering

Skills

Programming: Python, Java, C++, C, C#, JavaScript, TypeScript, Go, SQL, NoSQL, PHP, Hack, HTML, CSS | React, Angular, Node.js, Flask

Tools: Git, Subversion, Jenkins, Linux, Unix, MongoDB, Snowflake | AWS, Azure, Google Cloud Platform, Docker, Kubernetes, Terraform

Experience

Bank of America

June 2024 - August 2024

Software Engineer Intern

Plano, TX

- Engineered a scalable **Python**-based drift detection algorithm for **5M+ JSON objects**, reducing processing time from hours to **4.5 seconds** and achieving a **47000x speedup**
- Built modular orchestration, detection, and notification pipelines which enabled integration with internal systems in **under 2 days** and improved onboarding efficiency
- Automated test case generation for complex JSON scenarios, boosting test coverage by **40%** and ensuring **reproducible results** across testing environments

Magnifico

October 2023 - December 2023

Software Intern

Remote

- Shipped a video transcript tool using **React** and **AWS Lambda**, cutting latency to **15 seconds** and improving **UX** through a redesigned profile interface
- Collaborated across engineering and QA to resolve **10+ Lambda bottlenecks**; optimized **MongoDB** with compound indexing and aggregation, reducing large-query execution time by **35%** and eliminating async failure cases

APCON

May 2023 - December 2023

Software Front End Intern

Plano, TX

- Delivered **5 user-facing features** and maintained a UI-related support ticket rate under **1 percent** by managing **3 core Angular components** and resolving **35 production issues**
- Refactored **7 TypeScript components** for modularity and led **30+ code reviews** across Agile sprints, enhancing **code maintainability** and reducing **runtime errors**

Projects

Database Optimization Assistant

- Designed a **Retrieval-Augmented Generation** system using **Falcon 7B** to generate **250 SQL schema recommendations**, improving database consistency and reducing query latency
- Developed a **natural language to SQL engine** with **50 millisecond response time** and parsed **100 Snowflake DDL scripts** to support real-time analytics use cases

Movie Sentiment Analysis

- Trained and benchmarked **XGBoost**, **LightGBM**, and **BERT** on **50000 IMDB reviews**, with XGBoost achieving top performance (**AUC 0.83**, **F1 0.8271**) in binary sentiment classification
- Preprocessed text with NLTK and accelerated training by **2 times** on **Colab GPU**, improving F1 score and minimizing overfitting on unseen data

NBA Highlights Classifier

- Programmed an end-to-end **AI pipeline** with **YOLOv5**, **MoveNet**, and **Random Forest** to classify **40000 NBA clips** with **77 percent accuracy**, using **OpenCV** and **Selenium** to auto-label **980 samples**
- Deployed the pipeline on **Azure** and automated training workflows with Jupyter Notebooks, increasing iteration speed by **3 times** and improving **precision by 12 percent** using grid search and cross-validation

Honors and Certifications

1st Place, NASA Tech Trek Hackathon (Urban.AI - sustainability tool for urban heat analysis)

Startup Grant Winner, Expanding Frontiers Space Tech Pitch Competition (**\$2,500 in seed funding**)

AWS Certified Cloud Practitioner, Issued by **Amazon Web Services**