Kolade Alabi

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Summary

ML Engineer & Master's student at University of Maryland, College Park with 2+ years experience shipping production-grade ML features and resilient backend systems at JPMorgan Chase. Expertise in LLM integration, classical ML pipelines, and scalable AWS deployment.

Education

University of Maryland, College Park — *College Park, MD*

Master of Science in Computer Science — *Expected May 2027*

- **Key Coursework**: Uncertainty Communication for Decision-Making, Theory of Robust Machine Learning, Systems for Machine Learning, Interactive Technologies in Human-Computer Interaction, Advanced Computer Graphics

Skills

Machine Learning & Data TensorFlow, Keras, PyTorch, Scikit-learn, SciPy, Pandas, Polars, NumPy, Matplotlib, LangChain, LangGraph, SQLite, MySQL, PostgreSQL, MongoDB, OpenSearch/ElasticSearch

Languages & Web: Python, Flask, Django, FastAPI, Streamlit, C/C++, C#, .NET, JavaScript/TypeScript, React, Webpack, R, Java, Spring Boot, Apache Maven, SQL, HTML/CSS

CI/CD: Git, Terraform, AWS, Docker, Apache Jmeter, Jenkins, SonarQube, Spinnaker

Experience

University of Maryland, College Park — *College Park, MD*

Teaching Assistant — *September 2025 - Present*

- Facilitating communication between professor and students, and assisting with management of Unity-based Game Programming course
- Tutoring students individually to improve understanding of course topics

JPMorgan Chase — *Houston, TX*

Software Engineer — *August 2023 - August 2025*

- Spearheaded the design and development of an Agentic LLM Assistant for presentation creation, fit with Q&A support capabilities as well as integrations with newly created VectorDB internal knowledge base for Retrieval Augmented Generation (RAG), content library APIs, and internal financial applications
- Developed the core platform for the AI Assistant, a .NET PowerPoint add-in that streamlined business presentation creation and unrestricted content retrieval for over 80,000 users
- Modernized core APIs to AWS hosting, including the refactoring of Apache Solr-powered search to AWS OpenSearch full-text querying — increasing scalability and allowing for retirement of global physical servers
- Execution Excellence Award Q1 2024: One of 5 recipients out of ∼200 JPMC SEP engineers for contributions to the modernization of key application modules and sharing of expertise on AWS ECS and OpenSearch

Carnegie Mellon University — *Remote*

Research Intern (Part Time) — *July 2023 - December 2024*

- Designed k-d tree-based false positive particle filtering system, reducing noise in particle data by more than 40% to improve downstrain clustering
- Created Singularity container to run the Deep Iterative Subtomogram Clustering Approach (DISCA) deep learning pipeline end-to-end and furthermore trained CMU collaborators from multiple universities on the usage of said container, reducing setup time by nearly 80%

Capital One — *McLean, VA*

Software Engineering Intern — *June 2023 - August 2023*

- Engineered and deployed Universal Deep Link servicing across web, email, and mobile application channels — powering seamless integration for partners like Walmart, Google Autofill, and Zelle — driving increased traffic to the EASE mobile application while reducing navigation time by up to 75% for ∼38 million existing EASE users
- Deployed a PostgreSQL database on Amazon Aurora, eliminating the use of a middleman service and reducing expenses by 19%

Activities

Stanford University

TreeHacks Mentor — *February 2025*

- Engaged with 10+ teams during TreeHacks 2025 hackathon, eliminating roadblocks and encouraging project development through conversations and brainstorming with students

Google

Computer Science Research Mentorship Program — *February 2023 - May 2023*

- Invited to present research findings on novel applications of Transfer Learning architectures to predict the progression of Alzheimer's in patients by way of blood samples to CSRMP participants
- Collaborated with a Google NLP researcher to explore best practices in academic Machine Learning research, directly informing the development of Undergraduate thesis on image style transferral