

ADITYA ASHOK

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EDUCATION

- University of Illinois Urbana-Champaign** GPA: 3.95 / 4.0 Aug 2024 - Dec 2025
- Master of Computer Science
- Michigan State University – Honors College** GPA: 3.72 / 4.0 Aug 2019 - Dec 2022
- B.S. Computer Science & Engineering
 - B.S. Data Science
 - Minors: Business; Entrepreneurship & Innovation

EXPERIENCE

- Relativity | Software Engineering Intern | Chicago, IL** May 2025 – Aug 2025
- Architected data re-tiering system for 70+ Petabyte Azure data platform, optimizing storage costs across hot/cool/cold access tiers
 - Developed ML classification models in AzureML & integrated 2 end-to-end ETL data pipelines, using Azure Python SDK V2 & DuckDB
 - Reported savings of ~\$1.8 Million annually by predicting file access patterns and inferring smart re-tiering decisions
- ECODE Lab – Michigan State University | Research Software Developer | East Lansing, MI** July 2023 – Feb 2024
- Researched and programmed evolution-inspired ML algorithms to validate eco-evolutionary theory using advanced graph structures
 - Optimized complex algorithms by benchmarking alternative methods & data structures, improving computational efficiency by 40%
 - Published 2 open-source libraries (Python/C++) adopted by researchers globally for digital ecological simulation
- Assetmark | Software Engineer - Intern | Concord, CA** April 2023 - July 2023
- Implemented scalable end-to-end data pipelines in Python and C# to drive core data workflows for a new web application
 - Containerized Python/Bash scripts with Docker to auto-generate Postgres databases from Avro schemas
 - Resolved 5+ critical backend bugs using BDD testing framework (Azure Test Plans, Gherkin scripts, Cucumber, Playwright)
- Trane Technologies | Data Science & Analytics Intern | Davidson, NC** May 2021 - Aug 2021
- Formulated an end-to-end machine learning forecasting model, built using scikit-learn in Python, predicting raw material market indices up to 4 quarters ahead with 90% accuracy, covering \$1M+ annually
 - Engineered ETL pipeline pulling real-time Bloomberg data into a PostgreSQL database supporting downstream ML model inference
 - Deployed a supplier management database automating onboarding/tracking processes reducing task completion time by 90%

CAPSTONE EXPERIENCE

- Microsoft | Boston, MA** Sept 2022 - Dec 2022
- Created browser extension enabling ASL translation for web text, focusing on STEM terminology, using NLP models (word2vec, BERT)
 - Implemented full-stack solution in Python/Flask with JavaScript frontend, leveraging SpaCy & Gensim for semantic processing
- Kellogg's | Kalamazoo, MI** Jan 2022 - May 2022
- Developed NLP models in R and Python; sentiment analysis models achieved 70% accuracy on customer review classification and multi-label text classifier achieved 65% accuracy for predefined category prediction
 - Integrated custom translator tool processing 10,000+ text comments from various languages to English, deployed to production

LEADERSHIP EXPERIENCE

- Michigan State University | Resident Assistant | East Lansing, MI** Jan 2021 – Dec 2022
- Mentored 1,200+ students in residential community, completing 200+ hours of crisis management training
 - Led conflict resolution and multicultural development initiatives across diverse student populations
- Engineering Career Center | Career Peer | East Lansing, MI** Jan 2021 – Dec 2022
- Coached 1000+ students on using WHO logic resume optimization, interview preparation, and job search strategies
 - Launched and directed a new executive speaker series connecting C-suite leaders with 500+ students across 12 sessions

TECHNICAL PROJECTS

- **CourseQA:** Retrieval-Augmented Generation (RAG) chatbot for course-specific Q&A, benchmarking FAISS vs Qdrant indexing and multiple embedding LLM models (Zephyr, Mistral, LLaMA-2, Gemma, etc.) for context-aware, high-accuracy responses
- **AI Career Companion:** HCI focused GenAI career support to context-aware resume critique, skill gap analysis etc., with prompt-engineered LLM analysis, including an integrated interactive chatbot for personalized, user-centered feedback loops
- **MyCO:** Cloud-native app built on DBMS concepts using CloudSQL on GCP with advanced SQL queries, indexing, triggers & constraints

TECHNICAL SKILLS

Python, C++, JAVA, C#, SQL, R, AWS, Azure, Tableau, PowerBI, TensorFlow, Keras, PyTorch, sklearn, NumPy, Pandas, GitHub, LINUX, AGILE