

Niharika Adari

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EDUCATION

University of South Florida: **Bachelor of Science in Computer Science** Tampa, FL
• USF GPA: 3.97/4.0 : *Summa Cum Laude* Aug 2021-Dec 2024
• Vice President: Women in Computer Science Club (WiCSE)

EXPERIENCE

Citibank, N.A Tampa, FL
Digital S/W Eng Intm Analyst, Officer of AML Systems Jan 2025-Present

- Core contributor to the AWS cloud migration for Citi's global Sanctions Risk Management application, successfully migrating 10 out of 20 production-grade mission-critical microservices to EKS with Aurora PostgreSQL by containerizing services, and configuring pod level networking.
- Accomplished enterprise data-pipeline modernization by contributing to migration of 4,200+ database objects to Aurora PostgreSQL by rewriting incompatible PL/SQL logic, rebuilding ORM mappings, and validating data fidelity across systems, ensuring PostgreSQL/Oracle Compatibility.
- Independently resolved 65% of all cloud-migration defects (15+) within a two-month period.
- Engineered a production-adopted outbox architecture producing sequence diagrams that identified failure points, defined fallback logic, and established a robust cloud-ready architecture.
- Developed and expanded automation test suite coverage across 389+ cases, unblocked CI failures, and strengthened pipeline reliability.

USF SEES Lab Research Assistant, Contributor to NSF-funded project Tampa, FL
"A Framework for the Stochastic Verification of Computation and Communication Systems." Jan 2024- Dec 2024

- Developed preprocessing pipelines to extract causality graphs of message-flow patterns from System on Chip communication traces.
- Engineered a pattern-evaluation and ranking pipeline, including acceptance-ratio computation and validation engine; accelerated throughput by 14x through multithreaded batching and pruning heuristics.
- Designed and optimized a generalized pattern-removal algorithm capable of eliminating variable-length sequential patterns from large execution traces, achieving a 400× speedup through hash-table indexing and pointer-based traversal.

USF Teacher Assistant- Data Structures Tampa, FL
Student Assistant Aug 2024-Dec 2024

- Provided 10 hours per week of academic support, assisting the professor with grading exams and offering individualized help to students, including answering questions and clarifying C++ concepts.

PROJECTS

StudyKeet: Full-Stack AI-Powered Study Assistant (Desktop Application)

- Engineered a learning platform that enables summarization, semantic querying, automated flashcard generation, spaced-repetition workflows using Electron, React, and FastAPI.
- Built a RAG-based evaluation system integrating multimodal content processing for vector-based pipelines using LangChain, Groq inference, SQLAlchemy, HuggingFace embeddings, and ChromaDB.

HONORS AND AWARDS

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- **Dean's List:** Earn semester GPA of 3.90 while taking 12 credits, for 4 semesters Fall 2021- Spring 2023
 - **USF Presidential Award:** Highest merit award based on academic excellence throughout high school

ADDITIONAL

Technical Skills: Python, Java, C/C++, SQL, JavaScript, HTML/CSS, R; AWS (EKS, Aurora PostgreSQL), Docker, Kubernetes, OpenShift; PostgreSQL, Hadoop; Spring Boot, React, Flask, Electron; NumPy, pandas, scikit-learn, TensorFlow, PyTorch, Matplotlib, Seaborn, Plotly; Selenium, Cucumber BDD, BeautifulSoup4