

Lalith Uriti

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EDUCATION

University of North Carolina at Charlotte

December 2026

Bachelor of Science in Computer Science, Systems & Networks Concentration

- Relevant Coursework: Systems Fundamentals, Data Structures & Algorithms, Computer Architecture, Networks, Databases, Object-Oriented Programming, Machine Learning, NLP, Computer Vision, Discrete Math
- Activities: Association for Computing Machinery (ACM), Charlotte Machine Learning Lab, UNCC SIGGRAPH

EXPERIENCE

Software Engineering Intern

May 2026 – August 2026

CODiT Technologies — Detroit, MI

- Improved LLM response accuracy by 18% across 120+ test queries by implementing a **RAG pipeline** with document chunking, **semantic embeddings**, vector retrieval, and prompt grounding
- Reduced manual workflow execution time by 35% by developing **Python-based AI agents** that orchestrated **API calls**, data retrieval, and multi-step task execution
- Decreased GenAI application latency by 27% by optimizing model requests, retrieval logic, and **backend API integrations** while validating outputs against predefined quality metrics

Undergraduate Research Intern

May 2026 – August 2026

Charlotte Machine Learning Lab — Charlotte, NC

- Reduced manual trace-analysis time by 38% across 64–67 timestamped events per trace by refactoring a **Python/JavaScript knowledge-graph visualizer** to map learning interactions to knowledge components and misconception states
- Expanded temporal analysis coverage by 3× by engineering **Pandas-based transformations** for 1-day, 3-day, and 7-day windows, enabling comparison of concept mastery and state transitions over time
- Reduced trace-navigation overhead by 45% by implementing one-click trace loading, previous/next controls, and interactive **Altair** views while resolving legacy imports, configuration paths, and macOS compatibility issues

Undergraduate Teaching Assistant

August 2025 – December 2026

College of Computing & Informatics — Charlotte, NC

- TA'd Data Structures & Algorithms; pathfinding, dynamic programming, graphs, trees, hashing, recursion, etc.
- TA'd Computer Networks; TCP/IP, UDP, DNS, routing, switching, firewalls, network security, etc.
- Led labs, reviewed and debugged student code, graded assignments, and supported course logistics and instruction

PROJECTS

NetSentinel | *Python, Scapy, Kafka, Spark, XGBoost, FastAPI*

- Detected anomalous traffic with 94% F1-score across 50K+ flows using **XGBoost** and flow-level network features
- Processed 18K+ flows/min by streaming packet telemetry through **Kafka** and **Spark**
- Reduced inference latency by 31% by serving real-time predictions through **FastAPI**

CineGraph | *Python, PyTorch, PySpark, PostgreSQL, FastAPI*

- Improved Precision@10 by 19% using **collaborative filtering**, semantic embeddings, and content-based ranking
- Processed 25M+ MovieLens ratings with **PySpark** to generate user-item and model-training features
- Achieved sub-85ms recommendation latency using **FastAPI** and **PostgreSQL**

EllipsePy | *Python, NumPy, Pandas, NASA APIs, JPL Horizons, PyPI*

- Modeled orbital trajectories using **NASA APIs** and **JPL Horizons** ephemeris and state-vector data
- Built reusable **NumPy** and **Pandas** pipelines for orbital calculations and data transformation
- Published a scientific-computing package through **PyPI** for orbital analysis and visualization

TECHNICAL SKILLS

Languages: Python, Java, Swift, C, C++, JavaScript, CSS/HTML, SQL

Developer Tools: Agile Methodology, AWS, Docker, Git, Google Cloud Platform, Kubernetes

Libraries: Pandas, NumPy, Matplotlib, Plotly, Scikit-learn, PyTorch, TensorFlow