Harinishree Sathu

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Education

Georgia Institute of Technology — Atlanta, GA
Master of Science in Computer Science, Machine Learning — *Aug. 2025 – Dec. 2026*

Georgia Institute of Technology — Atlanta, GA
Bachelor of Science in Computer Science, AI and Data Modeling/Simulation — *Aug. 2022 – May 2025*

- BS GPA: 3.71/4.0 | MS GPA: 3.75/4.0
- Awards: 2025 NSF-EMBS-Google Young Professional NextGen Awardee (IEEE BHI '25); GT President's Undergraduate Research Winner (Spring 2025); J. Leland Jackson Fellowship Distinguished Paper for Bioinformatics; 6x Dean's List, Faculty Honors
- Leadership and Service: TA for Biomedical Health Informatics (BMED 4478); IEEE EMBS Member; ACM BCB 2026 Webmaster

Experience

Applied Scientist Intern — June 2026 – Present
Oracle Health — *Redwood City, CA*

- Built an agentic LLM pipeline to auto-generate evaluation rubrics from PRDs, saving 4–5 hours of manual eval work per release cycle across 5+ product teams; integrated GPT-5 with LLM-as-judge scoring aligned to MT-Bench and HealthBench criteria
- Designed a end-to-end semantic versioning system with Confluence integration to track rubric evolution (bronze-to-gold) across multi-agent pipelines, enabling interpretable cross-version eval comparison and eval of tone, factual correctness, and text quality
- Conducted structured interviews with 5+ product teams to surface eval gaps and align rubric design with real-world workflows

AI Platform Intern — June 2025 – Sept. 2025
Oracle Health — *Santa Clara, CA*

- Built a LangGraph-backed ReAct agent workflow using GPT-4o and Pydantic to automate third-party package information extraction with external API integration, saving engineers 10+ hours per production cycle previously spent on manual review
- Scaled extraction pipeline to 1,000+ tools via GitHub and PyPI APIs; developed a companion Chrome extension (HTML, CSS, JavaScript) to surface context-aware compliance information at point of use, reducing manual review overhead

Software Engineering Intern — May 2024 – Aug. 2024
The Cigna Group – Evernorth Health Services — *Nashville, TN*

- Refactored 100+ files across an internal automation platform (HTML/CSS, Node.js, JavaScript), improving reliability for 80+ engineering teams across the organization; added secondary downtime alerting to reduce engineer response time via notifications
- Built an intern performance and events dashboard using React, TypeScript, Next.js, and Tailwind CSS in an Agile environment

Research Experience

Graduate Research Assistant – BioMIB Lab — Jan. 2023 – Present
Georgia Tech Biomedical Informatics & Bio-Imaging Lab — *Atlanta, GA*

- Achieved 96.61% cell-wise accuracy on surgical event extraction from free-text clinical notes across 1,000+ pediatric oncology patients at CHOA by developing an LLM-based system with clinician-in-the-loop workflow, evaluated across CoT, few-shot with definitions, RAG with COG guidelines, and self-consistency CoT; 2nd author on IEEE TBME journal paper (under review)
- Developing multi-agent federated tumor board systems for rural community hospitals using NVIDIA FLARE, integrating genomics, radiology, and electronic health record (EHR) data with reinforcement learning to simulate multidisciplinary specialists

Biomedical Data Science REU Intern — May 2023 – Aug. 2023
Wake Forest University School of Medicine — *Winston-Salem, NC*

- Trained GCN and GIN models with PyTorch Geometric and DGL on 3D fMRI-derived cortical surface features to classify Alzheimer's Disease stages with 74.6% test set; generated cortical visualizations with MONAI, Nibabel, Freesurfer, and Brainstat

Projects

Drug Discovery Agent Evaluation SDK | *RDKit, TDC, Python* — In Progress

- Building an open-source evaluation SDK for AI agents performing drug discovery tasks (molecule generation, property prediction), benchmarking agent reasoning and outputs against TDC datasets

Software Team Lead – Georgia Tech Medical Robotics — Aug. 2022 – May 2024

- Founded and led the software team from scratch, partnering with electrical and mechanical engineering to build a robotic arm prototype for automated surgical tool retrieval with image segmentation machine learning models (YOLOv7, SAM)
- Created a custom surgical tool dataset in Roboflow/CVAT, improving model accuracy across 10+ tool classes

Human Robot Interaction – Hathaani Carnatic Violin Robot — Aug. 2025 – Dec. 2025

- Designed and built an interactive web platform using Streamlit, Flask, and Arduino to conduct a user study on interaction with a robotic violin system, focusing on improving engagement and accessibility

flexTENSity Relief Startup | *PitchRx Startup Competition Semifinalist* — Jan. 2024 – Mar. 2024

- Co-developed clinical need validation and market sizing for a targeted ML-backed TENS device for hand arthritis pain management

Technical Skills

Clinical AI & LLMs: LangGraph, LangChain, DeepAgents, DeepEval, RAG, Ollama, GPT-4o/5, FHIR/HL7, HIPAA
ML & Data Science: PyTorch, TensorFlow, scikit-learn, Pandas, NumPy, matplotlib, PyG, DGL, Neo4j, OpenCV, vLLM
Programming: Python, SQL, Java, C++, JavaScript, MATLAB
Cloud & Tools: AWS, Azure ML Studio, GitHub, Bitbucket, Docker, Codex