

Sarvesh Sundaram

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Master's CS student specializing in AI, Big Data, and distributed systems with strong experience in hardware-software integration, ML/AI Engineering, automated testing, and large-scale data pipelines. Adept at learning new technologies & strong team player.

Education

GEORGIA INSTITUTE OF TECHNOLOGY

M.S. Computer Science (In-Person)

Dec 2026

Relevant Coursework: *Machine Learning, Big Data Systems & Analytics, Visual Data Analytics*

RENSELAER POLYTECHNIC INSTITUTE (RPI)

B.S. Computer Science (Concentration in Machine Learning & Data) – GPA 3.85/4.00

May 2025

Relevant Coursework: *Data Structures & Algorithms, Machine Learning, Computer Vision, Linear Algebra, Probability, Database Systems, Modern Binary Exploitation, Operating Systems, Principals of Software, Programming Languages, IT and Web Science*

Skills

Frameworks/Languages: Python, Java, C++, C, HTML/CSS, Tailwind CSS, JavaScript, Typescript, Node.js, React, Next.js, SQL, Pytest, Tableau

Tools: Git, Linux/Unix, Pytest, GitHub Actions, Vercel, PyTorch, Numpy, AWS, Azure, MongoDB, Databricks, Hadoop/HBase, Pig, Spark

Experience

GEORGIA INSTITUTE OF TECHNOLOGY

Graduate Researcher

August 2025 – Present

- Utilizing Deep Learning to generate compressed mesh representations, significantly reducing number of parameters while preserving detail
- Designing automated evaluation pipelines for 3D mesh compression models to validate numerical stability and performance

THE CIGNA GROUP

Data & AI Engineer Intern

May 2023 – August 2025

- Worked on the Applied GenAI Team, building enterprise-wide tools to enhance data engineering and business analytics workflows
- **Implemented CI/CD** pipelines for automated schema validation for Neo4j knowledge graph, ensuring end-to-end data integrity
- Developed UI over relational metadata in Neo4j and deployed to Elastic Kubernetes Service, optimizing performance by eliminating need for Cypher Querying Language, **saving ~\$2400 annually** by providing read-only Role-Based Access Control
- Creating DAG in AWS MWAA to stress-test Redis & Oracle endpoints, increasing service connectivity **by 77% for 20+ engineers**
- Developed Python LLM-powered SQL Analytics Algorithm to extract data on join conditions in PySpark and Teradata SQL files and ingest into Neo4j knowledge graph databases using Cypher and Kubernetes
- Implementing the capture of **2623 stored procedures, 10582 SQL statements, and 77378 join conditions**, that will be used as metadata for enterprise-wide text-to-SQL algorithm to improve join condition generation ability
- Developed PySpark POC to ETL customer call data from **50+ AWS S3 buckets** into Databricks, improving parsing for analytics pipelines

RENSELAER POLYTECHNIC INSTITUTE

Undergraduate Researcher

October 2021 – May 2025

- Built convolutional neural network (CNN) in PyTorch and OpenCV to classify mock surgical procedures, achieving **88% accuracy** and contributing to a potential joint RPI-University of Buffalo publication
- Developed ML, RAG, and Vision Models to detect anomalies in airport security videos using temporal, crowd-level, and behavioral data
- Organized and labeled **500+ video datasets** to build a robust training/testing pipeline, aiding anomaly detection algorithm development

Projects

MyCity

- Served as back-end development for patent-pending internal networking application
- Led team of 5+ interns to develop serverless REST API using TypeScript, Lambda, and DynamoDB with **~\$1000 annual cost**
- Led the integration of API endpoints with **10+ web pages** using Next.js, enabling full end-to-end functionality and enhancing UX/UI
- Presented product with team in company-wide presentation, with positive feedback on implementation of back-end from judges

GitCub

- Served as back-end lead for webapp that provides AI-generated insights for **500+ repositories** to streamline code reviews
- Architected FastAPI and core AWS cloud infrastructure, including Lambda, APIGateway, and DynamoDB within a secure VPC
- Estimated to save **~\$10,000 in annual development costs per 100 engineers**, receiving positive feedback on functionality of app

Leadership/Honors

Leadership: Learning Assistant Coordinator, counselor to **50+ freshmen**, providing academic guidance during transition to college, managed team of **10+ LA's**, and recorded **60% decrease** in alerts during high-stress periods

Honors: RPI Leadership Scholarship, covering **40% of tuition**, given to **10% of accepted students**; Dean's Honor List, Fall 2021 - Present