

Nithil Eshwar Mani

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EDUCATION

University at Buffalo

Master of Science (Data Science)

2025

CGPA: 3.67

Courses – Statistical Learning, Data Mining, Data Models Query language, Predictive Analysis, Analysis of Algorithms.

College of Engineering, Guindy (CEG)

Bachelor of Engineering (Computer Science and Engineering)

2023

CGPA: 3.23

Courses – Machine Learning, Data Structures, NLP, Big Data Analytics, Database Management Systems.

EXPERIENCE

Software Engineer Intern, GreenInfo Tech - Union City, CA

July 2025 - Present

- Worked on the **MedScribe AI** project as part of a **5-person team**, which focusses on automating paperwork by transcribing patient encounters, generating notes and filling medical forms. Used **GPT-4o** for building agentic systems (Text-to-SQL, AI Voice Agent).
- Optimized a **Text-to-SQL agent** to provide SQL results to natural language queries. Used **Vanna AI** to train the model on **600+ patient records** and wrote **70+ SQL query prompts**. Improved performance on complex queries by **60%**.
- Developed an **AI Conversational Voice Agent** to automate patient intake (appointment scheduling, verifying insurance information) via phone calls. Used **FastAPI** for building **APIs** and **ElevenLabs** for **conversation handling, storage and retrieval**.
- Conducted **unit and integration testing** using **pytest**. Optimized backend code and improved performance by **20%**.

Software Engineer Intern, Techavidity - Frisco, Texas

June 2025 - Present

- Managed graph databases using **Neo4j**, and vector databases like **Milvus** and **Weaviate** to support real-world apps.
- Used **Neo4j ETL** tools generate metadata mappings and export data from PostgreSQL databases.
- Implemented graph algorithms and used **Neo4j Aura Graph Analytics** to gain deeper insights.
- Integrated AI models for intelligent relationship discovery and data-driven automation using **Graph RAGs**.
- Incorporated **Serverless applications** with simplified development and **reduced costs by 50%**.

Research Assistant, University at Buffalo - Buffalo, New York

February - May 2025

- Collaborated as part of a **4-member team** on the development and testing of **UnionLabs**, a shared online platform to share data, code, software and hardware resources for research in next-generation networks and wireless Internet of Things.
 - Established **AWS EC2**-local server connectivity with API endpoints.
 - Conducted thorough testing of **back-end, database, and APIs** to ensure robustness and reliability of the platform. Improved user **accessibility and responsiveness by 70%** through optimized **React.js**.
 - The cloud-based remote-access solution enabled ease and efficiency while **reducing lab costs by 60%**.
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PROJECTS

Apple Stock Data - ETL - Python, SQL, DuckDB, Power BI

- Extracted **Apple stock data** across 3 years (2022-2024) from an **external API** using **Python**.
- Transformed extracted raw data for completeness and integrity. Loaded transformed data to **DuckDB** for analysis in **SQL**.
- Utilized **Power BI** for Dashboards and Visualization.

COVID 19 Case Surveillance ETL and Analysis - Python, Tableau

- Collected **COVID 19 surveillance data** from an external **API**. Performed **data cleaning** on about **50K+ case entries**.
- Analyzed data in **Tableau** to visualize trends in age, admission status, death status, date of first report and other details.
- Generated insights were helpful in determining the effects of features, recommend precautions, and improve treatment.

DataCO Global Supply Chain - Data Analysis and Machine Learning Project - Python

- A dataset of **Supply Chains** used by the company DataCo Global was used for the **Python** analysis.
 - Areas of important registered activities: Provisioning, Production, Sales and Commercial Distribution.
 - Conducted **EDA** on **30K+ transactions**, identifying key risks like **76% late Second-Class deliveries** and **22% pending payments**.
 - Implemented an **end-to-end regression modeling pipeline** across 23 regional datasets.
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TECHNICAL SKILLS

- **Programming and Querying:** Python, C, C++, Java, R, Golang, Scala, JavaScript, React.js, Typescript, SQL, NoSQL, Cypher
- **Software Development and Containerization:** Amazon EKS, Amazon EC2, Git, Docker, Kubernetes
- **Analytics and Visualization:** Tableau, PowerBI, Google Analytics, Metabase, AWS Redshift, Matplotlib
- **Databases and ETL tools:** MySQL, PostgreSQL, Neo4j, DuckDB, Milvus, Weaviate, AWS Glue, AWS Athena, Apache Spark
- **AI tools:** AWS SageMaker, AWS Bedrock, Langchain, BigQuery ML, Pytorch, Tensorflow, Vanna AI, ElevenLabs API
- **Certifications:** AWS Certified Machine Learning Engineer Associate, AWS Certified Data Engineer Associate