

# Nivas Marudhavanan

+1-682-248-4433 | [nxm7281@mavs.uta.edu](mailto:nxm7281@mavs.uta.edu) | <https://www.linkedin.com/in/nivas-marudhavanan> | <https://nivas1105.github.io/nivasmarudhavanan>

## SUMMARY

Data Engineering Professional with robust experience in Python-driven ETL pipelines, data modelings and cloud platforms. Strong foundation in computer science and data science supports transforming raw data into actionable insights and efficient architectures. Proven collaboration in academic and professional settings, eager to contribute analytical skills to diverse projects.

## EDUCATION

### The University of Texas at Arlington

Masters, Data Science (GPA: 3.67/4.0)

Jan 2024 - Dec 2025

Arlington, Texas

### Velammal Engineering College

Bachelors, Computer Science Engineering (GPA: 3.24/4.0)

Jul 2016 - Sep 2020

Chennai, India

## WORK EXPERIENCE

### SecureKloud Technology | Associate - Cloud

Oct 2020 - Dec 2022

- Designed and maintained scalable ETL pipelines using Apache Airflow to optimize data extraction, transformation, and loading processes, ensuring high data quality for downstream analysis.
- Developed a serverless SFTP solution on AWS that enhanced secure file transfers, reduced vendor delays by 40%, and improved operational efficiency for data collection efforts.
- Automated cloud resource deployments through Terraform modules, ensuring robust configuration management and compliance with version control standards.
- Collaborated with cross-functional teams to architect secure and scalable cloud infrastructure, contributing to a 25% improvement in system uptime and a 15% reduction in costs while supporting data-driven decision-making.

### 8K Miles Software Services Limited | Intern

Dec 2019 - Sep 2020

- Constructed a REST API and backend framework for a web database application using Python and SQL, streamlining data handling and reinforcing adherence to programming best practices.
- Integrated the web application with AWS services to bolster scalability and performance, while maintaining comprehensive documentation of coding procedures and data processes.

## PROJECTS

### GPA-Scout: An Intelligent Semantic Search Engine for University Course Data

May 2025 - Jul 2025

- Built a semantic search engine by transforming extensive university course data into vector embeddings with the BAAI/bge-base-en-v1.5 model enabling the system to handle typos and interpret user intent.
- Created a unique two-stage re-ranking method to improve search accuracy ensuring precise and contextually relevant results for specific queries and launched a user-friendly chatbot interface using Gradio, providing an intuitive way for users to interact with complex course data.

### Amazon Purchase Analysis & Spending Dashboard

May 2025

- Developed a Python-based tool to analyze personal Amazon spending using Pandas for data aggregation, cleansing, and exploratory analysis.
- Designed and built a dynamic dashboard with Plotly and Dash to visualize spending trends category-wise expenditure and purchasing behavior.

### End-to-End E-Commerce Data Pipeline on AWS

June 2025 - Jul 2025

- Engineered a scalable, serverless data pipeline on AWS to ingest the public Olist e-commerce dataset, using AWS Glue and Spark to process raw CSVs into an optimized Parquet format in an S3 data lake.
- Designed and implemented a star schema data model in Amazon Redshift and automated the complete ETL workflow using AWS Step Functions for robust orchestration and error handling, ensuring reliable data loading from the data lake into the Redshift data warehouse.

## SKILLS

**Cloud Platforms:** AWS (S3, EC2, Lambda, Glue, Redshift, Athena, Kinesis, EKS, Step Functions, IAM), Snowflake, Databricks

**Data Engineering:** Apache Spark (PySpark), Apache Airflow, dbt, ETL/ELT Design, Data Warehousing, Data Modeling

**Databases:** PostgreSQL, Microsoft SQL, MongoDB, DynamoDB, RDS

**Programming:** Python, SQL, Bash, R

**DevOps:** Docker, Terraform, AWS CloudFormation, Git, CI/CD

**Machine Learning:** Scikit-learn, PyTorch, Keras, Pandas, NumPy, Flask/FastAPI, Langchain

**BI & Visualization:** Tableau, Power BI, Plotly

## CERTIFICATIONS

**AWS Cloud Quest: Cloud Practitioner:** Amazon Web Services | **Python :** Hackerrank | **SQL - Master :** Coding Ninjas