

# Ajay Kumar Seelam

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## EDUCATION

### University of North Texas

*Masters in Computer Science*

### Nalla Narasimha Reddy Education Society's Group of Institutions

*Bachelors in Computer Science*

Denton, Texas, USA

Jan 2023 - Dec 2024

India

Aug 2017 - May 2021

## TECHNICAL SKILLS

**Programming Languages:** Python, SQL, Java, HTML, CSS, JavaScript

**Big Data Technologies:** Hadoop, Hive, Apache Spark, Apache Kafka, NoSQL Database - Cassandra

**ETL Tools:** Informatica, ODI, SSIS, SAP Data Services, Apache Airflow, Oracle Data Integrator, DBT

**Databases:** MySQL, PostgreSQL, Neo4j, Oracle Database

**Microsoft certified Azure Data Engineer** Azure Data Factory(ADF), Azure Databricks, Azure Synapse Analytics, Data Lake Storage, Azure Databricks, Cosmos DB, Azure Stream Analytics, Azure Event Hubs, Power BI with Azure Integration

**Libraries and Frameworks:** Pandas, NumPy, Sklearn, PyTorch, TensorFlow, Keras, LangChain, Flask, Streamlit

**Tools:** Tableau, Power BI, AWS, Azure, Oracle cloud, GCP, Jupyter, Visual Studio Code, Docker, Excel

**Architectures:** Transformers, Large Language Models, RAG, GraphRAG, API Development, custom GPT's, Parser Generators

## WORK EXPERIENCE

### Data Analyst

*University of North Texas - Transportation Services, USA*

Aug 2023 – Dec 2024

- Optimized operational efficiency by implementing data-driven insights, resulting in a 10% reduction in average travel time and a 15% increase in route efficiency for customers.
- Developed interactive dashboards in Power BI, improving stakeholder understanding of parking citation and violation trends, resulting in a 40% increase in data-driven decision-making.
- Designed and implemented fraud detection algorithms in Python, analyzing 1M+ parking-related transaction records, which enhanced fraudulent activity identification accuracy by 35%, strengthening operational security.

### Software Engineer

*Stellantis, India*

Oct 2021 – Dec 2022

- Created a automation script using Python that processes and analyzes 200+ Excel sheets, making data retrieval 50% faster for the team in agile environment. Upgraded system functionalities to meet the requirements.
- Streamlined data collection and processing tasks using Python, reducing manual errors and increasing efficiency by 30%.
- Led the automation of ETL pipelines utilizing Python for large datasets exceeding 1M records; streamlined processing times by over 35%, improving overall efficiency within ongoing data science operations across teams.
- Leveraged advanced machine learning techniques to optimize performance metrics for supply chain operations; reduced delivery delays by creating accurate forecasts based on demand trends over the past five years.

### Data Engineer Intern

*Auto-smart.fin, India*

Jun 2019– Jul 2021

- Orchestrated ETL pipelines using Azure Data Factory, Databricks, and Synapse, reducing data processing time by 35%.
- Built CI/CD pipelines with Jenkins, eliminating manual interventions and ensuring seamless deployments across projects.
- Crafted reusable frameworks using Spark and Scala, reducing development efforts by 25%. Specialized in DevOps automation by implementing open-source tools like Jenkins, enhancing build and release efficiency by 30%.
- Improved deployment processes using Git Actions, cutting release times by 40%.

## PROJECTS

- AWS-Powered Handwritten Digit Recognition:** Customized using CNNs and deployed on cloud infrastructure to process image data efficiently by 76%.
- Generative AI for Dialogue Summarization:** Trained a Generative AI Model - a dialogue summarization task using the FLAN-T5 model from Hugging Face, focusing on summarizing conversational dialogues.
- Stock Market Real-Time Data Analysis Using Kafka :** Conducted real-time stock market data analysis using Python, Kafka, Amazon S3, and Amazon Athena; achieved a 99.9% uptime for the Kafka cluster while halving overall data processing time to enhance analytical efficiency.