ssmaheswar2001.github.io/portfolio/ | leetcode.com/u/ssmaheswar2001/ Mobile: +1 2054479759

EDUCATION

University of Alabama at Birmingham

Birmingham, USA

Email: ssmaheswar2001@gmail.com

Master's in Computer Science | GPA: 3.8 / 4.0

Jan 2024 - Dec 2025

Course Work: Data Structures, Database Systems, Machine Learning, Deep Learning, Data Mining, Data Science, Probability & Statistics

Jawaharlal Nehru Technological University

Kakinada, India

June 2018 - June 2022 Bachelor's in Computer Engineering | GPA: 8.82 / 10.0

EXPERIENCE

University of Alabama at Birmingham

Birmingham, USA

Graduate Assistant (Digitalization and Digital Services Laboratory)

April 2024 - Present

- Designed metadata data curation for 7000+ fragile historical records, ensuring digital preservation, & facilitating technical research.
- Automated digital preservation workflows using Python, increasing accessibility of digital assets, and improving archival efficiency.

International Institute of Information Technology, Hyderabad

Remote

AI Developer Intern (Viswam.AI)

May 2025 - June 2025

- Gained knowledge in Python, Software Development, & AI concepts that empower the journey toward advanced AI engineering.
- Obtained hands-on experience procuring data and fine-tuning with 13 dedicated teams and transformed models into AI applications.

HCL Technologies

Hyderabad, India

Software Engineer - AI & Data (Client: Verizon)

Aug 2022 - Dec 2023

- Completed 80+ hands-on Python and SQL projects, developing robust scripts for automation and data processing workflow.
- Designed a hospital management system using Python, Tkinter, and SQLite, ranked 2nd out of 60 interns for project functionality.
- Deployed 8 Spark ETL pipelines on GCP Dataproc, extracting data from GCS, transforming data in Dataproc notebook, and loading processed data into GCS and BigQuery for batch & real-time streaming, and recognized as top 5% intern for project delivery.
- Optimized AI-driven solutions for Verizon's FWA project, contributing to \$550M+ revenue and supporting a 4.2M+ customer base.
- Engineered PySpark ETL pipeline to migrate 20M+ records from Teradata to GCP Big Query, reducing ingestion time by 35%.
- Implemented GCP Dataproc using PySpark & Spark SQL, transforming 20M+ unstructured data records from Raw to Curated zones.
- Mapped 200+ BTEQ scripts with 500+ columns, ensuring data modeling between source and target DBs, improving data consistency.

TECHNICAL SKILLS

- Programming Languages: Python, Java, SQL, C
- Databases: MySQL, PostgreSQL, NoSQL(MongoDB)
- Web Technologies: HTML, CSS, JavaScript, React, Flask, FastAPI
- Big Data & Data Engineering: ETL pipelines, PvSpark, Hadoop, Airflow
- AI & ML: Numpy, Pandas, Matplotlib, Seaborn, Scikit-learn, Keras, Tensorflow, PyTorch, Langchain
- Analytical Skills: Excel, Data Modeling, Exploratory Data Analysis, Power BI, Data Ingestion, Data Curation
- Cloud & DevOps: Amazon Web Services (AWS), Google Cloud Platform (GCP), GitHub Actions, Docker, CI/CD
- Other Skills: Software Engineering, Development, Design, Review, Debugging, OOPS, Operating System, Algorithms

ACADEMIC PROJECTS

Attendance Management System using Computer Vision & Text-2-SQL Chatbot | Github

Tech Stack: Python, FastAPI, React, MySQL, Docker, AWS EC2, AWS RDS, AWS S3, Github Actions, Yolo-Face, ResNet-100, MongoDB, llama3 LLM

English-to-Indian language Transliteration using RNNs | Github

Tech Stack; Python, FastAPI, React, MongoDB, RNN, Bi-RNN, Bi-RNN + LSTM, GCP Vertex AI

MLOps Hand Sign Detection using Yolo | Github

Tech Stack: Python, FastAPI, React, AWS EC2, Github Actions, YoloV5

Handwritten Digit Classification | Github

Tech Stack: Python, CNN, ResNet, FastAPI, React, AWS EC2

Movie Recommendation System | Github

Tech Stack: Python, Content-based Recommendation, Streamlit

Note Taker Application | Github

Tech Stack: Java, MySQL, Hibernate, JSP, HTML, Bootstrap

CERTIFICATIONS & ACHIEVEMENTS

- AWS Associate Machine Learning Engineer Amazon Web Services
- Deep Learning Specialization DeepLearning.AI | Credential

AWS Certified Cloud Practitioner - Amazon Web Services | Credential

Oct 2024 July 2024

Machine Learning Specialization - DeepLearning.AI | Credential

June 2024

GCP Associate Cloud Engineer - Google Cloud Platform | Series Id: 89931

June 2023

PCEP - Certified Entry Level Python Programmer - OpenEdge | Credential

May 2023