

SUSHRUTH VELDI

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EDUCATION

The George Washington University
Master of Science in Data Science

Washington, DC
January 2025

Mahatma Gandhi Institute of Technology
Bachelor of Technology in Computer Science

Hyderabad, India
August 2022

TECHNICAL SKILLS

- **Programming & Scripting Languages:** Python, R, Java, SQL, HTML, CSS, JavaScript, Bash
- **Data & Machine Learning Tools:** Tableau, Power BI, Excel, NumPy, Pandas, Scikit-learn, TensorFlow, OpenCV, MongoDB, Apache Spark, Hadoop, Data wrapper
- **Frameworks & Cloud:** Fastapi, React, AWS, GCP
- **Operating Systems & DevOps:** Windows, Ubuntu, Git, Kubernetes, Docker

EXPERIENCE

TGS-NOPEC OIL & GAS

Houston, Texas

Data Science Developer

May 2025 - Present

- Developed a React application with a FastAPI backend to validate SEGY and MDIO seismic data by generating trace maps, extracting spatial footprints, and performing geometric comparisons with reference data.
- Optimized performance using Ray for parallel processing (60% faster trace reading), containerized with Docker, and added interactive visualizations with GeoPandas, OpenCV, and Plotly.
- Automated validation workflows, leveraging LLMs for metadata extraction and structured storage, ultimately reducing 400+ man-hours annually and saving significant time and costs.
- Worked on extracting trace headers from seismic data, designing a schema using Pydantic, and storing the results in a structured format for easier access and retrieval.

The George Washington University

Washington, DC

Graduate Teaching Assistant – Linux for DevOps

Sep 2024-Jan 2025

- Led interactive lab sessions and hands-on exercises focused on Linux system administration, guiding students through essential tasks such as shell scripting, process management, user permissions, and networking configurations. Provided one-on-one support to help students grasp complex concepts and troubleshoot technical issues.
- Collaborated with the professor to design and grade assignments, ensuring fair and consistent assessment criteria. Provided constructive feedback to students, helping them improve their understanding of Linux and DevOps best practices.

Geo Pragyan Technologies

Hyderabad

Software Engineer

Aug 2021 – Sep 2022

- Developed Python-based applications and pipelines to automate the processing of seismic and survey datasets, improving efficiency and reducing manual work by 40%.
- Built geospatial visualization tools and automation scripts using libraries such as NumPy and Pandas, enabling faster analysis and better decision-making for engineering teams.

Verzeo

Bengaluru

Software Engineering Intern

May 2021 - July 2021

- Assisted in developing Flask-based backend services for healthcare applications, contributing to coding, testing, and debugging tasks.
- Built data validation scripts to improve reliability and gained hands-on experience with Git and deployment workflows.

TECHNICAL PROJECTS

Sentiment Analysis on Social Media Platforms (Reddit and Twitter)

February 2024-May 2024

- Developed and deployed a machine learning model (ELECTRA) for sentiment analysis, achieving an accuracy of 87%.
- Integrated real-time data scraping from Reddit using Python's Reddit API Wrapper (PRAW), enabling live monitoring and sentiment tracking of community discussions.
- Processed and balanced a dataset of over 75,000 comments using advanced text preprocessing techniques, ensuring high-quality model training and sentiment classification.

CERTIFICATIONS

AWS Certified Cloud Practitioner – Amazon Web Services (AWS) | Issued: Oct 2024