

Sai Prasanth Mantha

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EDUCATION

University of North Texas

Denton, TX

Master's of Science in Data Science

Jan 2024 – Present

- Graduate Student specializing in machine learning, software engineering, and data analytics.
- Maintaining a perfect 4.0/4.0 GPA throughout my program, reflecting strong academic performance.

TECHNICAL SKILLS

- **Languages:** Python, Java, SQL, C, JavaScript
- **Data Science and ML:** TensorFlow, Keras, PyTorch, Scikit-learn, Pandas, NumPy, OpenCV, YOLOv8, Algorithms supervised, unsupervised learning
- **Cloud/DB:** AWS, GCP, MySQL, PostgreSQL, MongoDB, Hadoop
- **DevOps & Tools:** Spring Boot, JUnit, Node.js, Maven, Git, Eclipse, Visual Studio Code, AppDynamics, Splunk, Tableau, PowerBI
- **Project Management:** Agile, JIRA, ServiceNow

EXPERIENCE

Graduate Research Assistant

Aug 2024 – Present

University of North Texas

- Led lab sessions and tutoring for 60+ students in Python and ML, improving student project completion rate by 25%.
- Built a real-time facial recognition system using YOLOv8 and OpenCV with 96% accuracy for automated classroom tracking.

Junior Software Engineer

Dec 2021 – Feb 2024

Cognizant Technology Solutions

- Built a Stock Portfolio Management System for Discover Bank using React, Java, Spring Boot, and MySQL to help financial advisors track portfolios in real time, view data insights, and use custom dashboards.
- Created Splunk dashboards to monitor live data, simplifying analysis and report generation.
- Coordinated with offshore team members for various client-specific tasks and enhancements, enhancing collaboration and reducing turnaround time by 25%.

Embedded Software Engineer

Jan 2021 – Nov 2021

Exposys Data Labs

- Developed a real-time drowsiness detection system on Raspberry Pi using OpenCV, dlib, and numpy to monitor driver fatigue and improve safety.
- Used facial landmark detection with dlib and machine learning algorithms to identify signs like eye blinks and yawning with up to 90% accuracy.

PROJECTS

Statistical Analysis of Cybersecurity Breaches | *Python, Tableau*

- Analyzed over 1,000 U.S. cybersecurity breach records (2010–2014) using Python and Tableau, identifying trends like a 2008 breach spike and theft as the dominant type, with visualizations highlighting high-risk states like California and Texas.
- Examined business associate involvement correlating with increased breaches, informing targeted cybersecurity measures while efficiently managing tasks to meet deadlines.

Medical Insurance Cost Prediction Model | *Python, Pandas, Scikit-learn, Matplotlib*

- Developed a machine learning model using linear regression and decision trees to predict medical insurance costs based on age, gender, BMI, smoking status, and location, achieving 78% accuracy and improving prediction accuracy by 65%.
- Optimized model performance through data preprocessing and feature selection, using Pandas, Scikit-learn, and Matplotlib to streamline data handling and visualization, reducing processing time by 50%.

Public Spaces for Teenagers Analysis | *Google Cloud Platform, BigQuery, Hive, Spark, OpenRefine*

- Analyzed Chicago and Washington D.C. open data using GCP, Hive, and Spark, designing BigQuery queries to identify gaps in recreational facilities, enhancing urban planning insights.
- Processed datasets with OpenRefine, resolving 98% of missing values and converting text to numerical formats, ensuring compatibility for advanced analysis and efficient visualization.

CERTIFICATIONS

- Applied Data Science by Hitachi Vantara | Data Analytics Professional Certificate by Google | Full stack by Cognizant | AWS Cloud foundation | Python For Data Science by Cognizant |