

# Venkata Sai Abhigna Devarasetty

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## PROFESSIONAL EXPERIENCE

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### Mu Sigma Business Solutions

*Bangalore, India*

#### Apprentice Leader

June 2022 – July 2022

- Led a team of 8 to develop a comprehensive ML data catalog, documenting techniques, flows, and pipelines from scratch, enhancing data organization, accessibility, and project efficiency
- Guided a team of developers through complex project challenges, enforcing best practices and efficient workflows; resulted in a 20% rise in user engagement and 10% faster feature deployment

#### Data Scientist - II

January 2021 – May 2022

- Spearheaded the migration from in-house language Phoenix to React, achieving a 35% performance improvement and enhancing user experience and system efficiency
- Deployed Elastic Search, reducing search times from 10 to 5 seconds, which enhanced user productivity and data accessibility
- Collaborated with multidisciplinary teams to translate user requirements into technical solutions, bridging the gap between software development and data science

#### Data Scientist - I

May 2019 – December 2020

- Addressed bug fixes and implemented feature enhancements in the algorithm team, resulting in 10%-15% daily returns on trades through statistical pair formation
- Developed data visualization strategies to convey complex trading insights, enabling end-users to make informed decisions and achieve at least 10% returns on each trade
- Incorporated statistical techniques like correlation analysis to identify high-potential currency pairs (correlation  $\geq$  0.7), enhancing team profitability and data-driven decision-making

## PROJECTS

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- **Comparative Study of GNN-Based Recommendation Systems:** Improved recommendation accuracy and computational efficiency by analyzing LightGCL, SimGCL, and XSimGCL models using the MovieLens 100k dataset
- **MRI Registration via Deep Learning:** Achieved DICE scores of 0.828 (uni-modal) and 0.817 (multi-modal) using TensorFlow, Keras, and U-Net, optimizing VoxelMorph for better registration precision
- **Walmart Forecasting Enhancement:** Implemented a sales forecasting model using statistical techniques and ML algorithms, with 75% accuracy on Walmart's historical data, enhancing decision-making and inventory management
- **LinkedIn Job Market Analysis:** Analyzed job postings using GCP, BigQuery, and Looker Studio to extract insights on trends, skill demands, and hiring patterns, enhancing data-driven decision-making
- **OutfitAI:** Created a multimodal GenAI app to analyze clothing images and recommend similar items and purchase locations. Utilized LangChain and Vertex AI for processing and designed a user-friendly interface with Streamlit, optimizing real-time performance

## SKILLS

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**Languages:** Java, Python, C, C++, SQL, Redis, JavaScript, HTML, CSS, R

**Frameworks:** React, Node.js, Selenium, Material-UI, RestAPI, Express, D3, Kafka, Socket.io

**Developer Tools:** Git, Docker, Kubernetes, VS Code, IntelliJ, Eclipse, Tableau, Excel, R Shiny, CI/CD, Shell Scripting

**Libraries:** Pandas, NumPy, Matplotlib, TensorFlow, Keras, D3.js, SciPy, Scikit-learn, Matplotlib, PyTorch

**Databases & Cloud Technologies:** MySQL, PostgreSQL, NoSQL, BigQuery, GCP, AWS

**Machine Learning & Data Science Techniques:** Forecasting Models, Ensembling Methods, Statistical Analysis, Data Visualization, LangChain, LLM, GANs, RAGs

## EDUCATION

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### Indiana University Bloomington, Indiana

*Master of Science in Data Science*

### Vasireddy Venkatadri Institute of Technology, Guntur, India

*Bachelor of Technology in Computer Science*

## RECOGNITIONS

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- Awarded 3 Spot Awards at Mu Sigma for exceptional performance and contributions to Data Catalog project and Pair trading project
- Recognized with an Impact Award at Mu Sigma for pioneering enhancements in the data catalog project, resulting in a 35% increase in data utilization and contributing to organizational growth