**SHIVA MOGILI**Ph: 3464460878 | email: [shivamogili1998@gmail.com](mailto:shivamogili1998@gmail.com) | [LinkedIn](https://www.linkedin.com/in/shiva00) | [GitHub](https://github.com/shivareddy0117) | Houston, TX

# **SUMMARY**

Driven Data Scientist with expertise in machine learning, deep learning, computer vision, NLP, and multimodal data, seeking to enhance innovation with advanced analytics and model optimization.

# **WORK EXPERIENCE**

**Data Scientist**

*Tekdynamics Inc, Dallas, Texas May 2023 – Present*

* Boosted computational efficiency by 40% leading the optimization of machine learning and NLP models using Cerebras Wafer-Scale Engines.
* Implemented data models with high Scalability to handle increased volumes of data in fast-paced environments
* Developed and optimized product offerings by analyzing large datasets and predicting market trends
* Innovated with mixed precision training, enhancing efficiency by 50% for models like ResNets and BERT
* Provided over 100 model references, improving ease of use by 25% and boosting adoption by 20%
* Enhanced data processing pipelines in collaboration with engineers, using AWS and XGBoost, resulting in a 35% increase in model accuracy.
* Leveraged exceptional communication skills in collaborating with cross-functional teams, ensuring accurate comprehension of data analyses.
* Utilized presentation skills to communicate data-driven insights to non-technical team members during monthly meetings.

**Research Assistant**

*University of Houston, Houston, Texas April 2022 - March 2023*

* Led HTS tape manufacturing enhancement, using Python, R, and PySpark for a 40% boost in predictive accuracy and uniformity through Neural Fitted Q-Iteration with ANN
* Managed complex datasets in various Production Environments to drive data-driven decision making
* Leveraged Business Value by implementing data-driven solutions that increased operational efficiency by 30%
* Employed PCA for critical feature selection, significantly impacting HTS tape quality. Developed and implemented multimodal sensor-based real-time monitoring strategies, leveraging machine learning models in TensorFlow and PyTorch for dynamic quality control
* Optimized manufacturing parameters, achieving a 5.6% increase in tape uniformity and establishing new production standards.

**Data Science Analyst**

*Capgemini Technology Services India Ltd, Hyderabad, India Sept 2020 - Jan 2022*

* Led demand forecasting and inventory optimization using Python, R, and Light GBM across global retail chains, improving forecast reliability by 25%
* Utilized PySpark on cloud infrastructures for efficient data manipulation and accelerated model training. Optimized Facebook Prophet and Vector Auto Regression models for real-time sales and commodity price forecasting, integrating external market trends to improve prediction accuracy
* Developed dynamic Power BI dashboards for real-time analysis and crafted custom algorithms for feature engineering using SQL and Python, boosting forecast precision by 20%. Implemented a React JS-based UI for seamless real-time visualization, enhancing business decision-making processes
* Spearheaded a team to deploy models via Docker and Kubernetes, achieving a 3% uptick in accuracy with advanced inventory logic

# **SKILLS**

**Programming Languages :** Python, R, PySpark, SQL, C++

**Statistics :** A/B testing, Multi-Arm Bandit Algorithm, Normal, Long-Tailed, Binomial, Chi-Square, Poisson, Hypothesis testing

**Machine Learning :** XGBoost, LightGBM, Linear Regression, Logistic Regression, Decision Trees, Random Forests, Ensemble Learning, PCA, SVD, Regularization, SVM, Gaussian Processes, Hidden Markov Models (HMMs), State Space Models, Variational Inference, MCMC, Clustering (Hierarchical, spectral), LDA, PCA

**Deep Learning and Architectures :** CNNs, ResNet, U-Net, RNNs, LSTMs, GRUs, Autoencoders, Transfer Learning, Approximate Inference, Deep Generative Models, Transformers, GPT series, BERT, T5, Huggingface, MoEs

**AI & Reinforced Learning :** Markov’s Decision Processes, Q-learning, Deep Q-Networks, value function and policy-based methods

**HPC :** GPGPU, CUDA, GPU.js, Cython

**Tools & Technologies :** Pandas, Numpy, Scipy, Matplotlib, Seaborn, Plotly, Scikit-learn, Pytorch, TensorFlow, Keras, SQL, NoSQL, Power BI, Apache Spark, Hadoop, GitHub, Amazon Redshift, AWS S3, SAS, AWS EMR, AWS CloudFormation, Python, Apache Spark, Vertex AI, Kubeflow, Agile, Docker, Kubernetes, Kafka, Redis, Terraform, MLFlow/comet.ml, git/GitHub, airflow

# **EDUCATION**

**University of Houston, Cullen College of Engineering** Houston, Texas

*Masters in Engineering Data Science*  Jan 2022 - May 2023

**Osmania University, University College of Engineering** Hyderabad, India

*Bachelors in Mechanical Engineering* Aug 2016 - Sept 2020