K. S. SUSHANTH

+91-63791-19460 | k.s.sushanth06@gmail.com | linkedin.com/in/sushanthks | github.com/SushanthKS06

EDUCATION

Bachelor of Technology (B.Tech) – Information Technology Sep 2023 – May 2027 (Expected)
Sri Krishna College of Engineering and Technology *Coimbatore, India*

- Relevant Coursework: Probability & Statistics, Machine Learning, Linear Algebra, Data Mining, Database Systems, Experimental Design, Algorithms

TECHNICAL SKILLS

Programming: Python, SQL, Golang, Java, Scala
Machine Learning: Regression, Classification, Graph Neural Networks (applied), Reinforcement Learning (foundational), NLP with Transformers, CrewAI
Statistics & Experimentation: Hypothesis Testing, Power Analysis, A/B Testing, Model Evaluation, Introductory Causal Analysis, Causal Inference, Offline Policy Evaluation
Data Systems & MLOps: AWS, Azure, Apache Kafka, Redis, Docker, Kubernetes, MLflow, FastAPI, Hadoop, PySpark, Git, Linux
Libraries: PyTorch, PyTorch Geometric, TensorFlow, Hugging Face Transformers, scikit-learn

EXPERIENCE

Data Science Intern June 2025 – August 2025
Elevate Labs *Bangalore*

- Analyzed **100K+ user interaction records** across onboarding and recommendation flows to identify engagement and drop-off patterns.
- Performed **SQL-based data extraction and exploratory analysis** to define experiment metrics and validate data integrity.
- Built and evaluated **classification and segmentation models** (logistic regression, tree-based models), achieving **AUC scores between 0.71 and 0.76** on validation data.
- Supported the design and analysis of **A/B tests** on onboarding and content ranking features using **CTR and session-level engagement** as primary metrics.
- Measured a **2.8% CTR lift** for a new onboarding variant; findings **led to a partial feature rollout** and informed subsequent iteration.
- Delivered analysis summaries that directly influenced **feature prioritization and de-prioritization decisions**.
- Participated in code reviews and documentation to improve analytical rigor and reproducibility.

PROJECTS

Fraud Detection using Graph Neural Networks (Independent Prototype) | *PyTorch Geometric, Neo4j, Kafka*

- Built a **prototype fraud detection system** modeling transaction networks using public and synthetically generated data.
- Implemented a **Graph Neural Network (GNN)** capturing structural and temporal relationships, achieving **91% recall at 3% false positive rate**.
- Benchmarked performance against baseline tree-based models to validate incremental gains.
- Engineered **150+ graph-based features** including centrality measures, community structure, and transaction velocity.
- Addressed extreme class imbalance (**0.3% fraud rate**) using **semi-supervised label propagation**.
- Evaluated a **streaming inference pipeline** processing **5K events/sec** with sub-**100ms latency** in a simulated environment.

Dynamic Pricing Optimization using Reinforcement Learning | *Python, TensorFlow, Deep Q-Learning*

- Developed a **reinforcement learning prototype** to evaluate dynamic pricing strategies across **15 simulated city zones**.
- Built a **discrete-event simulation** modeling **50K+ daily trips** to safely test pricing policies.
- Benchmarked learned policies against static and rule-based baselines, observing **low single-digit revenue improvements** in simulation.
- Conducted **offline policy evaluation** using inverse propensity scoring and doubly robust estimation.

NLP-Powered Customer Support Automation | *BERT/RoBERTa, PyTorch, FAISS, FastAPI*

- Built an NLP pipeline to automate intent classification and routing for customer support queries.
- Fine-tuned **multilingual transformer models** on **500K+ labeled tickets across 8 languages**, achieving **89% intent classification accuracy**.
- Implemented a **Named Entity Recognition (NER)** model achieving **94% F1-score**.
- Reduced manual labeling effort by **73%** using an active learning loop.

OPEN SOURCE & ACHIEVEMENTS

Open Source Contributions: Performance and stability improvements merged into **FastAPI**, **LangChain**, and **Taipy** following maintainer review.
Problem Solving: Solved **500+ data structures and algorithms problems** on LeetCode and Codeforces, with emphasis on **graph algorithms and performance optimization**.
Developer Tooling: Built custom **load-testing utilities** and a **job-queue visualization tool** to analyze distributed workflows.
Certifications: AWS Certified Developer – Associate; Google Cloud Fundamentals; DeepLearning.AI Multi-Agent Systems.