

# ARIKATLA CHARAN TEJA

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## EDUCATION

### IIT KHARAGPUR

Bachelor of Technology

Major in Electronics and Electrical Engineering

Relevant Coursework: Algorithms, Linear Algebra, Optimization, Probability, Statistics, Signal Processing

Kharagpur, WB

Expected May 2027

## TECHNICAL SKILLS

- **Programming & Systems** :Python (Advanced), C++, SQL (PostgreSQL, SQLite), REST APIs, Git, Linux/Bash
- **AI/ML Engineering** : TensorFlow, Keras, PyTorch, Scikit-learn, Deep Learning (CNNs, LSTMs, Transformers), Transfer Learning, Model Evaluation & Optimization
- **NLP & LLM engineering** : spaCy, Sentence Transformers, TF-IDF, Embeddings, Retrieval-Augmented Generation (RAG), Prompt Engineering, FAISS/ChromaDB
- **MLOps & Deployment** : FastAPI, Docker, MLflow, Model Serving, Inference Pipelines, Experiment Tracking
- **Data & Visualization (Support)** : NumPy, Pandas, Matplotlib, Seaborn, Streamlit
- **Cloud & Infra (Applied)** : AWS/GCP (Basics), Containerized ML Workflows

## PROJECTS

### JOB MATCH RESUME PARSER

- Built an NLP pipeline to parse resumes and job descriptions, extracting skills and computing similarity scores.
- Implemented TF-IDF vectorization + cosine similarity with Pandas & spaCy.
- Deployed an interactive Streamlit app where users can upload PDFs and view match scores + highlighted skills.
- *Tech*: Python, Pandas, spaCy, Streamlit, Scikit-Learn

### MOCK MARKET ANALYSIS TOOL (ETL+Analytics)

- Built Processed **20K+ messy e-commerce rows** with outliers, NaNs, and nested categories into a clean, normalized dataset.
- Designed a modular ETL pipeline with Pandas & SQLite; automated ingestion with Cron Jobs.
- Produced segment-wise analytics with Jupyter visualizations (pricing, demand, category trends).
- *Upgrading with PySpark* to handle larger datasets and Tableau dashboard for visual reporting.
- *Tech*: Python, Pandas, SQLite, Jupyter, CRON, (PySpark planned)

### CUSTOMER CHURN PREDICTION (ML Project) (AUG 2025)

- Built a classification model to predict telecom customer churn using Scikit-Learn.
- Compared Logistic Regression, Random Forest, and XGBoost with hyperparameter tuning.
- Achieved **~87% accuracy** with XGBoost and explained key drivers of churn via feature importance plots.
- *Tech*: Python, Pandas, Scikit-Learn, XGBoost, Matplotlib

### CREDIT CARD FRAUD DETECTION

- Analyzed a **highly imbalanced Kaggle dataset (284,807 transactions; 492 fraud cases)**.
- Preprocessed data with scaling, oversampling (SMOTE), and class balancing techniques.
- Trained and compared models (Logistic Regression, Random Forest, XGBoost).
- Achieved **94% precision** and **90% recall** for the fraud class using XGBoost with tuned hyperparameters.
- Built a reproducible pipeline with scikit-learn for preprocessing, training, and evaluation.
- *Tech*: Python, Pandas, Scikit-Learn, XGBoost, Matplotlib, Seaborn

## LEADERSHIP AND COMMUNICATION EXPERIENCE

### GOVERNOR - TDS (IIT KHARAGPUR)

Head of the club

Kharagpur, WB

Mar 2024 – Sept 2024

- Managed a 130+ member student team across creative, logistics, and finance departments
- Oversaw budgeting, stage management, and event planning for 3 college-wide events (2,000+ attendees each)
- Fostered cross-functional collaboration between administration, student bodies, and technical staff

## STARTUPS & INITIATIVES

1. **SkillBeam(Founder)** : Early-stage micro-SaaS startup aimed at democratizing career guidance for Tier 2/3 students.
2. **Overflow Theory(Researcher)** : Ongoing theoretical work connecting physics and information science with potential applications in algorithmic entropy compression.