

Suraj Jaiswal

Data Analyst & NLP Engineer
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SUMMARY

Data Analyst at **Tiger Analytics** with **3+ years experience** (industry + research) delivering impactful Machine Learning solutions. Actively contribute to **ML research and publications** in top conferences (**NeurIPS** and **ACM**). Beyond work, I pursue a healthy lifestyle through yoga, surfing, traveling to new places, and badminton.

EDUCATION

• Indian Institute of Technology Gandhinagar (IIT)	Masters in Computer Science Engg	2022 – 2024
• Gujarat Technological University	Bachelors in Computer Science Engg	2018 – 2022

EXPERIENCE

- **Data Analyst — Tiger Analytics** Dec 2024 – Present
 - **Multi-agent AI interview orchestrator:** Architected using LangChain + LangGraph to execute routing, phase-specific question generation, and response evaluation dynamically to the job description for the role
 - Built an async **FastAPI + WebSocket** backend supporting real-time multi-phase interviews with guardrails
 - **GenAI Bill-of-Materials automation for lighting parts:** Designed and deployed a pipeline using AWS Bedrock, MLflow, and Docker, reducing manual generation time by 80% through structured extraction
 - **LLM-based code evaluator:** Built using OpenAI API, prompt engineering, and multi-threaded Streamlit UI for parallel execution, improving throughput by 3× and reducing manual review time by 90%
 - **Discrete choice modeling:** Engineered an end-to-end framework using xLogit and Pandas to analyze 1.8K+ traveler preferences via Multinomial Logit (MNL) models and behavioral analytics
 - Created interpretable marginals, utility, and demand estimation workflows to measure choice sensitivities and substitution probabilities under different scenario conditions on wide-to-long data
- **NLP Engineer — NeuroReef Labs** Oct 2023 – Oct 2024
 - **AI copilot for medical note-taking:** Developed using OpenAI LLMs fine-tuned on clinical guidelines
 - Built RAG system to autogenerate ICD-10, CPT, SNOMED, and HCC codes for medical billing of patient visits
 - **Medical chatbot:** Implemented using **HyDE + RAG** over **Athena EHR** data to deliver insights
 - Applied **few-shot prompt tuning** for medical guideline-consistent and domain-aligned LLM outputs
- **Researcher — IIT Gandhinagar** July 2022 – Oct 2023
 - **Space to Policy: Scalable Brick Kiln Detection and Automatic Compliance Monitoring with Geospatial Data** (link) Accepted at **ACM Journal on Computing and Sustainable Societies**
 - **Eye in Sky: Detection and Compliance Monitoring of Brick Kilns using Satellite Imagery** (link) Accepted at **ACM Compass on Computing and Sustainable Societies poster track**
 - **Towards Scalable Identification of Brick Kilns from Satellite Imagery with Active Learning** (link) Accepted at **NeurIPS Active Learning in the Real World**
Developed a scalable **YOLO-OBB-based deep learning pipeline** to detect and classify **30,000+ brick kilns** across 5 Indian states using satellite imagery to achieve **82% precision** over 520,000 km² of coverage

SKILLS

- **Programming Languages:** Python, SQL, C
- **Libraries:** LangChain, LangGraph, FastAPI, YOLO, PyTorch, TensorFlow, Scikit, NumPy, Pandas, Matplotlib
- **Tools & Cloud:** AWS (S3, EC2, Bedrock, ECR), Boto3, Docker, Hugging Face, Streamlit, Git, VS Code, Excel

ACHIEVEMENTS

- Won "AI Engine for Google Drive" Hackathon, ThirdAI Corp
- GATE Computer Science – Secured **97th percentile** in the Graduate Aptitude Test in Engineering