

Suraj Jaiswal

Data Analyst & NLP Engineer
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SUMMARY

Data Analyst at **Tiger Analytics** with **3+ years of experience** delivering impactful **ML** solutions. Alongside applications, I 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
 - Architected a **Multi-agent AI interview** orchestrator 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 guardrail
 - Designed and deployed **GenAI Bill-of-Materials automation for lighting parts** pipeline using AWS Bedrock, MLflow, and Docker, reducing manual generation time by 80% through structured extraction
 - Built **LLM-based code evaluator** using OpenAI API, prompt engineering, and multi-threaded Streamlit UI for parallel execution, improving throughput by 3× and reducing manual review time by 90%
 - Engineered an end-to-end **Discrete choice modeling** 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
 - Developed an **AI copilot for medical note-taking** 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
 - Implemented a **Medical chatbot** using **HyDE + RAG** over **Athena EHR** data to deliver insights
 - Applied **few-shot prompt tuning** for medical guideline-consistent and domain-aligned LLM outputs

RESEARCH PUBLICATIONS

- **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, Java, 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