

AAYUSH CHAMRIA

San Jose, CA | (213) 301-2578 | chamria@usc.edu | <https://www.linkedin.com/in/aayush-chamria> | <https://github.com/AayushC07>

EDUCATION

University of Southern California	Los Angeles, CA
Master of Applied Data Science 3.65 / 4.00	January 2025-Present
Mumbai University	Mumbai, India
Bachelor of Engineering in Computer Engineering 9.17 / 10.0	August 2018-May 2022

PROFESSIONAL EXPERIENCE

Tata Consultancy Services	Mumbai, India
Machine Learning Engineer	June 2023-July 2024
<ul style="list-style-type: none">Utilized OpenAI GPT-3.5 Turbo for intelligent document extraction from 10,000+ invoice PDFs to support business objectivesBenchmarked GPT-3.5 Turbo against traditional NER models, achieving a 70% improvement in field-level accuracyApplied Chain-of-Thought prompting and structured outputs, boosting extraction consistency by 60%Extracted key financial fields (e.g., date, GST, tax, amount) with 95% precision across diverse invoice formats	
Tata Consultancy Services	Mumbai, India
System Engineer	July 2022-May 2023
<ul style="list-style-type: none">Configured IWS jobs to automate data file operations and orchestrate batch workflows across production environmentsAutomated data flow across servers, enhancing reliability and service delivery by reducing manual interventionMigrated legacy data pipelines to GCP using Cloud Functions and BigQuery, reducing operational costs by 20%Crafted DAG-based workflows with real-time monitoring of backend jobs, Slack alerts, lowering job failure rates by 35%	
Tata Consultancy Services	Mumbai, India
Machine Learning Intern	January 2022-March 2022
<ul style="list-style-type: none">Developed an LSTM model forecasting high-impact TV ad slots by learning temporal patterns in viewer behavior and content trends, improving ad targeting efficiency by 22%Preprocessed 50K+ time-stamped records, aligning data by broadcast time, user demographics, and content metadata	

SKILLS SUMMARY

Programming & Frameworks: Python, SQL, NoSQL, C++, R, NumPy, Pandas, Scikit_Learn, PyTorch, Keras, Tensorflow, Streamlit, Agile
Machine Learning: OpenCV, Dlib, Logistic Regression, SVM, Decision Trees, Random Forest, Ensemble Models, NLP, BERT, NER, Prompt Engineering, Neural Network, Generative AI, LLM, Hugging Face, RAG, Transformers, Deep Learning, LangChain
Big Data & Cloud Technologies: Google Cloud, Azure, AWS, GIT, Jira, Hadoop, CI/CD, Apache Hive, Spark, Linux, Oracle

PROJECTS

PDFQuery (LangChain, Sentence Transformer, GPT-Neo, Flask)	January 2025
<ul style="list-style-type: none">Deployed a Flask-based web application that allows users to query content across 100+ PDFs through RAG powered by GPT-NeoExtracted text and created embeddings through SentenceTransformer, storing it in ChromaDB to enable efficient vector searchRetrieved top 5 relevant chunks for each user query, used LangChain to generate accurate, context-aware answers in real-time	
ChatMyDB (OpenAI GPT-4, Streamlit, PostgreSQL, MongoDB)	January 2025
<ul style="list-style-type: none">Designed an end-to-end AI-powered query generation system, converting into natural language questions for accurate SQL/NoSQL queries, reducing manual query writing time by 70%Empowered users with a real-time platform through an interactive Streamlit UI, handling 100+ queries daily	
DriveAlert System (Python, Pandas, Scikit-learn, OpenCV, Computer Vision)	September 2024
<ul style="list-style-type: none">Constructed a real-time driver drowsiness detection system leveraging OpenCV, Dlib, and Python, achieving 92% accuracy in detecting eye closure and yawning from facial landmarks and EAR thresholdsIntegrated multi-modal alerts, reducing simulated drowsy reaction time by over 70% during testing across 25+ trial sessions	

PUBLICATIONS

- "Detecting Fake Profile in Online Social Networks using EnsemStack Classification Algorithm" (ICCUBEA)

LEADERSHIP EXPERIENCE

- President, Social Wing - led nonprofit initiatives impacting 500+ underprivileged kids through education and outreach
- Intern Lead, SDG-RAIT - mentored 15+ interns, developed communication skills between mentor, stakeholders and students
- Directed "UDAAN - Let Dreams Fly", raising \$50,000+ from 6,000+ participants to support underprivileged education