ADARSH SUNIL KUMAR

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SUMMARY

AI Systems Engineer with BSc in Computer Science specializing in Artificial Intelligence and Machine Learning. Experienced across the full machine learning pipeline from model development and training to production deployment and MLOps infrastructure. Proven ability to build end-to-end AI solutions including NLP systems, computer vision applications, and generative AI implementations. Strong foundation in deep learning frameworks, cloud infrastructure, and scalable system design. Passionate about continuous learning and contributing to the AI community through knowledge sharing and collaborative problem-solving.

PROJECT

OVERWATCH - Missing Persons Data Intelligence Platform
- Developed full-stack AI-powered web application addressing India's missing persons crisis by transforming fragmented public records into actionable intelligence using large language models and automated ETL pipelines
- Engineered NLP pipeline leveraging LLMs (GPT-4, Claude) to extract and normalize critical information from unstructured data sources achieving 94% accuracy in entity recognition and data structuring
- Built interactive geographic heat mapping and demographic analysis dashboard visualizing patterns across gender, age groups, and locations (Delhi, Mumbai, Bangalore) enabling identification of high-risk zones
- Implemented real-time timeline reconstruction and predictive analytics using machine learning to identify correlations and patterns, providing law enforcement with data-driven investigation tools

FACTPLUS — AI-Powered News Credibility & Claim Verification Platform
- Developed full-stack AI-driven fact-checking platform that evaluates credibility of news articles, URLs, images, and screenshots by combining multimodal large language models with structured verification pipelines
- Engineered hybrid verification architecture leveraging Qwen 2.5-VL (local via LM Studio) and secondary LLM orchestration through OpenRouter to perform contextual claim extraction, source validation, and multimodal content analysis
- Built automated claim decomposition and evidence-matching pipeline that transforms unstructured content into verifiable atomic claims, generating explainable credibility scores with structured reasoning outputs
- Designed secure session-based data handling architecture with Firebase Authentication and Firestore, ensuring zero persistent storage beyond session scope while maintaining user privacy and compliance
- implemented modern front-end architecture using React 19, Vite, TypeScript, Tailwind, Radix UI, and React Query to deliver responsive analysis dashboards with accessibility optimization and real-time processing feedback.

EDUCATION

Bachelor of Science in Computer Science
Minor in Artificial Intelligence and Machine Learning · Kannur University · 2026 · 8.0/10
- Relevant Coursework: Deep Learning, Natural Language Processing, Computer Vision, Machine Learning, Data Structures and Algorithms, Database Management Systems, Cloud Computing, Statistical Methods.

CERTIFICATIONS

Vision intelligence and Machine learning
TCSiON
- Industry designed course on Vision Intelligence and Machine Learning (VIML).

SKILLS

Python, SQL, JavaScript, Java, C++, R

TensorFlow, PyTorch, Keras, Scikit-learn, Hugging Face Transformers, LangChain, OpenAI API, Anthropic Claude API

CNN, RNN, LSTM, Transformers, Transfer Learning, Fine-tuning, Attention Mechanisms

BERT, GPT, T5, Named Entity Recognition (NER), Sentiment Analysis, Text Classification, Question Answering, Large Language Models (LLMs)

Image Classification, Object Detection, Semantic Segmentation, YOLO, ResNet, OpenCV, Image Preprocessing

Docker, Kubernetes, MLflow, Weights & Biases, CI/CD Pipelines, Model Deployment, Model Monitoring, AWS SageMaker, Google Cloud AI Platform, AWS EC2, S3, Lambda, GCP Compute Engine, Cloud Storage

Amazon Web Services (AWS), Google Cloud Platform (GCP), Microsoft Azure

Pandas, NumPy, Data Preprocessing, Feature Engineering, ETL Pipelines, Apache Spark, Data Visualization, Matplotlib, Seaborn, Plotly

Git, GitHub, Jupyter Notebooks, Linux, Bash, REST APIs, FastAPI, Flask, Postman, VS Code, Streamlit