MOHAMMED SINAN P

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PROFESSIONAL SUMMARY

AI/ML Engineer with 1 year of experience building **production-ready AI/ML solutions**, including **LLM-powered chatbots** (with **RAG pipelines**) and **CCTV-based computer vision systems** using **YOLO** for real-time monitoring. Skilled in **Python**, **Pandas**, **Scikit-learn**, **Hugging Face**, **FastAPI**, and **Tableau** for **data analysis**, **model development**, and **deployment of scalable ML systems**. Experienced in applying **machine learning**, **deep learning**, and **NLP techniques** to deliver actionable insights and solve complex, data-driven problems. Known for strong **problem-solving skills**, **collaboration**, and a **growth mindset**, staying up-to-date with the latest advancements in **AI and data science**.

EXPERIENCE

Artificial Intelligence (R&D) Intern   *Aug 2025 – Present*
Boehm Tech LLP   *Calicut, Kerala*

Demand Forecasting System (LSTM + XGBoost)

- Developed a **hybrid demand forecasting system** using Multilayer LSTM and XGBoost to predict weekly medicine demand with high accuracy.
- Engineered advanced **time-series features** including lag variables, rolling statistics, and cyclical time encoding to improve model performance.
- Optimized forecasting reliability through continuous model validation and error analysis.

Workforce Management & Productivity Tracking System
(FastAPI, React, Electron, MongoDB, LLMs)

- Integrated **LLMs (Groq, LLaMA-3)** to automate employee performance summaries by synthesizing raw activity logs into qualitative productivity insights.
- Developed a real-time **desktop monitoring agent** using Python to capture mouse activity, keyboard intensity, and active application focus while maintaining user privacy.
- Engineered scalable data pipelines using **MongoDB** to aggregate millions of activity events and generate accurate daily and monthly productivity reports.

SKILLS

Programming Languages:
Python   R   C   Java   HTML   SQL

AI/ML Concepts:
Supervised Learning   Deep Learning   CNN   Transfer Learning   NLP   Computer Vision
Fine Tuning   Model Evaluation

Frameworks and Libraries:
Pandas   NumPy   Scikit-learn   TensorFlow   Keras   Matplotlib
Seaborn   OpenCV   HuggingFace   NLTK   SpaCy   YOLO
Streamlit   Flask   OpenSmile   Transformer   BERT

Data Tools:
Data Cleaning   EDA   Data Visualization   R Studio   Tableau   Power BI

Dev Tools:
Visual Studio   VS Code   PyCharm   Git/GitHub   Hadoop   REST APIs
Jupyter Notebook   Google Colab

No-Code Tools:
n8n   Zapier   Make.com

Soft Skills:
Public Relations   Communication   Leadership   Decision Making   Problem Solving   Teamwork
Adaptability

PROJECTS

Voicemail Prioritization System   *(Python, Twilio, NLP, Librosa, Streamlit)*
GitHub: Final-year-project

- Built an **AI-driven system** to prioritize voicemails based on urgency using speech and text analysis.
- Applied **Librosa-based audio feature extraction** and NLP techniques for sentiment and priority scoring.
- Integrated **Twilio APIs** and a **Streamlit dashboard** for automated voicemail handling and real-time analytics.

Human Violence Detection System   *(Python, YOLO, OpenCV, Deep Learning)*
GitHub: Violence-Detection-System

- Developed a **real-time computer vision system** to detect violent actions and weapons in video streams.
- Trained and evaluated **YOLO-based models** on annotated datasets, achieving **90% detection accuracy**.
- Implemented low-latency inference and **automated alert pipelines** using OpenCV and Python.

AI Company Lead Enrichment Bot   *(Python, LLMs, Gemini API, LLaMA-3, LangChain)*
GitHub: AI-Company-Enrichment-Bot

- Built an **LLM-powered lead enrichment system** to automate company profiling using APIs and structured web data.
- Integrated **Gemini API** for factual extraction and **LLaMA-3** for generating insight-driven company summaries.
- Automated CSV-based lead processing and export of enriched outputs for CRM and marketing workflows.

SEO Keyword Research AI Agent   *(n8n, Groq API, Google SERP API)*
GitHub: SEO-Keyword-AI-Agent

- Developed an **AI-driven SEO agent** to generate and rank 50 keyword candidates by search volume and competition.
- Used **Groq API** for LLM-based keyword ideation and **Google SERP API** for real-time SEO metrics.
- Automated the full workflow using **n8n**, delivering ranked keyword outputs in CSV format.

AI-Driven Delivery Automation for Logistics   *(Make.com, Zapier, AI Automation)*
GitHub: AI-Driven-Delivery-Automation

- Designed a **no-code AI automation system** for delivery and inventory operations at Nori Farm.
- Integrated **Make.com and Zapier** to automate order tracking, notifications, and inventory updates.
- Reduced manual backend operations by **40%** through event-driven automation workflows.

EDUCATION

B.Tech in Artificial Intelligence and Data Science
MES College of Engineering, Kuttipuram, Kerala, India   *Graduated: 2025*
CGPA: 7.88

XII Biology Science
GOVT Rajas HSS Kottakkal, INDIA   *Graduated: 2021*
Percentage: 95%