

SUMUKH ACHARYA

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EDUCATION

B.Tech in Computer Science and Engineering, PES University

Expected Graduation: **May 2026**

Specialization: MIDS (Machine Intelligence and Data Science)

EXPERIENCE

AI Intern

September 2025 - Present

Tvam Technologies Pvt. Ltd.

- Implemented and gained hands-on experience in **fine-tuning large language models** using **knowledge distillation** techniques.
- Actively contributing to the design and scalability planning for a full-stack AI project while mastering the company's core technology stack.

Teaching Assistant (Python & Databases)

August 2025 - Present

PES University

- Mentored 150+ undergraduate students in Python and Databases, while also assisting faculty with grading, course material preparation, and lab sessions.

Data Science Intern

June 2024 - August 2024

CODMAV (Centre of Data Modelling, Analytics and Visualization)

[\(GitHub Link\)](#)

- Led the development of a **lung cancer risk prediction system** using advanced feature selection (PCA, BSO, RFE, SelectKBest) and machine learning models (XGBoost, CatBoost, SVM, KNN), achieving **98.75% accuracy** and **96.25% recall**; co-authored on a research paper **accepted for publication on IEEE Xplore**.

PROJECTS

Distributed File Orchestration and Synchronization | Python, Sockets, Threading

[\(GitHub Link\)](#)

- Engineered a secure, **multi-client file server** with user authentication, enabling upload, download, preview, deletion, and listing of user-specific files; with **concurrent handling** for multiple client requests.

Grid Pulse | Python, Apache Kafka, Streamlit

[\(GitHub Link\)](#)

- Engineered a **real-time**, event-driven data pipeline using Apache Kafka within a decoupled microservice architecture to process both historical batch data and live event streams.
- Developed a **full-stack simulation** with a live, interactive Streamlit dashboard that consumes from a Kafka topic to visualize **real-time driver stock fluctuations**.

Senior Vision AI | Python, Flask, JavaScript, Gemini API

[\(Live Demo\)](#) [\(GitHub Link\)](#)

- Architected a **full-stack AI solution** to assist the elderly and visually impaired by scanning product labels, generating simplified summaries, and vocalizing the results.
- Integrated text-to-speech API providing **real-time vocalization** of AI-generated insights, delivering a fully accessible experience on a resilient stack **deployed to Render and Vercel**.

SKILLS

Languages:

Python, C, Java

Data Science:

PyTorch, TensorFlow, Scikit-learn, Pandas, NumPy

Frameworks and Tools:

MySQL, Kafka, Spark, Git, Docker, Kubernetes, FastAPI

ACHIEVEMENTS

- IBM Data Science Professional Course by Coursera [\(Certificate Link\)](#)
- Secured 7th place out of 364 teams in Kaggle Data Analytics Hackathon-1 [\(Competition Link\)](#)