Snehansh Nigam

GitHub: Snehansh1 | Linkedin: in/snehanshnigam | nigam.snehansh@gmail.com | 7021300629

Education

VIT Bhopal University, Bhopal 2022 – 2026
B.Tech in Computer Science & Engineering, CGPA: 9.11

Experience

AI/ML Engineer Intern - Sahana System Limited May 2025 – Aug 2025

- Trained TensorFlow & scikit-learn models on **12k** labeled samples (80/10/10 split); delivered **95.1%** test accuracy and **0.83** F1, a +25% relative gain over baseline logistic regression. Used grid search for hyperparameter tuning and reduced false positives
- Collaborated with cross-functional team of 5 engineers to optimize model deployment pipeline, reducing production deployment time from 3 days to 6 hours and ensuring 99% system uptime
- Implemented automated model monitoring and retraining workflows, reducing model drift by 25% and maintaining consistent performance across 6-month production deployment period

Projects

Cloneable Charm – AI Website Generator GitHub Link

- Built *Cloneable Charm*: prompt→website pipeline using LangChain + LangGraph + open-source LLMs. Converted prompts to scaffolded React projects
- Architected an agentic AI workflow utilizing LangChain, LangGraph, and open-source GPT models, enabling automated planning, architecture design, and incremental code generation
- Developed a multi-stage pipeline with Planner, Architect, and Coder modules that manage feature breakdown, task delegation, file-specific coding instructions, supporting over 95% accuracy in generated outputs

DocTalk AI – Context Aware Document QA GitHub Link

- Developed *DocTalk AI* with HuggingFace transformers and LangChain: document embedding + retrieval pipeline (FAISS) + answer synthesis. On a 100-doc user study, average question→answer time fell **62%** and user satisfaction scored **4.2/5**.
- Integrated state-of-the-art NLP and large language models for context tracking and answer synthesis, maintaining 90% answer relevance from user feedback

ShopLifting-Detection – Real Time CV System GitHub Link

- Implemented real-time retail security pipeline using YOLOv8 pose estimation, OpenCV tracking, and XGBoost classifier. Evaluated on **2,400** video frames: **90.5%** precision, **86.2%** recall for pickup events; false alarm rate reduced **30%** after rack-zone calibration
- Designed a custom rack zone marking logic and object tracking mechanism across frames, improving event localization and minimizing incorrect alarms by 30%
- Led the end-to-end development of a shoplifting detection system using YOLOv8 pose estimation and XGBoost classification, enhancing retail security through real-time behavior monitoring

Technical Skills

- **Programming:** Python, C++
- **Frameworks:** PyTorch, TensorFlow, Scikit-Learn, HuggingFace, LangChain, OpenCV, FastAPI
- **MLOps & Tools:** Docker, GitHub, MLflow, Git
- **Specializations:** LLMs (LLaMA, OPT, GPT-family), Computer Vision (YOLOv8), Retrieval-Augmented Generation, NLP pipelines
- **Data:** Jupyter, NumPy, Pandas, Matplotlib, Seaborn
- **Databases:** MySQL, PL/SQL

Achievements

- Selected as the sole representative team from VIT Bhopal for the SOLVE-A-THON hackathon, outperforming 50+ inter-campus teams with a working technical solution.