

# Dhyaneshvar K

Coimbatore, Tamilnadu

✉ dhyaneshvark1805@gmail.com

☎ +91 88255 07978

🔗 dhyaneshvar.tech

in Dhyaneshvar K

🔗 Dhyanesh18

## PROFILE SUMMARY

3rd-year BTech Computer Science student at IIIT Sri City with strong skills in Python, machine learning, deep learning, computer vision, and NLP. Passionate about AI, focusing on LLMs and Reinforcement Learning, while expanding expertise in web development, application integration, and model deployment.

## EDUCATION

Indian Institute of Information Technology SriCity *BTech in Computer Science Engineering* — GPA: 8.68 *Aug 2023 – Present*

## PROJECTS

**HDFS Log Anomaly Detection – Streaming ML Pipeline** [🔗](#) *Aug 2025*

- Built a **Kafka-based pipeline** for HDFS log anomaly detection with modular backends (RandomForest, Autoencoder).
- Developed Dockerized microservices for **log aggregation, real-time inference, and incremental retraining**.
- Used **MLflow** for tracking & evaluation (ROC AUC, Precision, Recall, Confusion Matrix).
- Scaled ingestion with **50 Kafka partitions** and online/batch retraining workflows.

**General RAG Chatbot with Hybrid Retrieval & Local LLM** [🔗](#) *May 2025*

- Implemented RAG with **Hybrid Retrieval** (BM25 + Dense) via Reciprocal Rank Fusion.
- Integrated **HyDE** + Cross Encoder reranking with asyncio for parallel efficiency.
- Built FastAPI backend with simple web UI; evaluated on BEIR-scifact (**NDCG@5: 0.66 MAP@5: 0.63 Recall@5: 0.74 Precision@1: 0.58**).

**Siamese U-Net for Building Damage Assessment (xView2)** [🔗](#) *Jun 2025*

- Implemented a **Siamese U-Net** with shared-weight encoders for 5-class building damage segmentation (xView2).
- Achieved strong results: **Pixel Accuracy = 95.5%, mIoU = 0.60, Dice = 0.63**.
- Added training/eval pipeline with Dice+CrossEntropy loss, per-class metrics, and CSV reporting.
- Built a **FastAPI backend with Docker** for real-time inference on pre/post-disaster images.

**FlappyRL — Visual RL Agent (SB3, PPO/A2C)** [🔗](#) *Apr 2025*

- Trained PPO/A2C agents on pixel-based Flappy Bird with **10M timesteps**, frame stacking & skipping.
- Applied **entropy annealing** for exploration-exploitation balance.
- Logged runs via TensorBoard; reproducible configs provided.

## TECHNICAL SKILLS

**Programming Languages:** Python, C++, C, Java, JavaScript, SQL

**Frameworks & Libraries:** TensorFlow, PyTorch, Scikit-Learn, FastAPI, Streamlit, LangChain, Node.js

**Data Science & ML:** ML, DL, RL, NLP, CV, LLMs, Exploratory Data Analysis

**Tools & Databases:** Pandas, Seaborn, OpenCV, MySQL, MongoDB, HTML, CSS

## CERTIFICATIONS

**DeepLearning.AI, Coursera** — Supervised ML: Regression & Classification (2024)

**DeepLearning.AI, Coursera** — Unsupervised Learning, Recommenders & RL (2025)

## LEADERSHIP & ACTIVITIES

**Co-Lead, NexSync Club** — IIIT Sri City

*Aug 2025 – Present*

**AIML Domain member, Google Developers Group** — IIIT Sri City

*2024 – 2025*