

SAMYAK VANSH

Associate Research & Development Engineer — Machine Learning Engineer

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Technical Skills

Programming Languages: Python, C, SQL

Machine Learning & Deep Learning: TensorFlow, PyTorch, Scikit-Learn, CNNs, Deep Learning, Generative AI

Computer Vision: OpenCV, InsightFace, ArcFace, DeepSORT, Face Recognition, Image Classification

LLM & NLP: Transformers, Hugging Face, LlamaIndex, NLP, RAG, Milvus

Data Science: NumPy, Pandas, Matplotlib, Plotly

Deployment & MLOps: Streamlit, Docker, Kubeflow, TensorRT, ONNX Runtime, Django

Databases & Platforms: MySQL, NVIDIA DGX-A100, Arduino

Experience

Associate Research & Development Engineer

Jun 2026 – Present

Black Orange Talent, Delhi

- Conducting research and development of AI, Robotics, and STEM-based educational technologies for K-12 learning ecosystems.
- Developing curriculum frameworks and project-based learning modules for Artificial Intelligence, Generative AI, and Robotics programs.
- Leading research initiatives, product validation, testing, and deployment of educational technology solutions.

Product Development & Training Intern

Dec 2025 – Jun 2026

Black Orange Talent, Delhi

- Designed intelligent systems using Python, Arduino, sensors, and embedded technologies.
- Supported development of robotics and AI-based STEM educational products.
- Developed curriculum modules and hands-on projects for AI and Robotics education.

Machine Learning Trainee (NVIDIA DGX-A100)

Sep 2023 – Jun 2025

Global Infoventures, Ghaziabad

- Developed machine learning solutions using NVIDIA DGX-A100 high-performance computing environments.
- Built real-time multi-person face recognition systems using computer vision and deep learning frameworks.
- Implemented GPU-accelerated inference and optimization using TensorRT and NVIDIA AI frameworks.
- Utilized Docker and Kubeflow for scalable machine learning deployment.

Projects

Fashion Product Intelligence System — GitHub Repo

TensorFlow, Keras, CNN, Streamlit, Computer Vision

- Developed an end-to-end fashion product image classification system using Convolutional Neural Networks and TensorFlow.
- Trained and evaluated a CNN-based classifier on the Myntra Fashion Dataset achieving 93.4% validation accuracy across seven fashion categories.
- Implemented image preprocessing, normalization, and multi-class prediction pipelines for robust inference.
- Built an interactive Streamlit application for real-time image classification, confidence scoring, and probability visualization.

Face Clustering System — GitHub Repo

Python, Streamlit, InsightFace, ArcFace, OpenCV, Scikit-Learn, DBSCAN, Plotly

- Developed an AI-powered face clustering system that automatically groups images of the same individual using deep face embeddings and density-based clustering.
- Implemented InsightFace-based face detection and ArcFace embeddings for robust facial feature extraction.
- Applied DBSCAN clustering on ArcFace embeddings to identify unique identities without requiring labeled training data.
- Designed an end-to-end clustering pipeline with Streamlit dashboard, confidence scoring, automated reporting, and visual analytics.

Certifications

- Google Cloud Skill Boost – 30+ Badges & Diamond League
- Generative AI Certification – Google Cloud
- Machine Learning Training – Global Infoventures (NVIDIA Partner)

Education

Bachelor of Technology in Computer Science (Artificial Intelligence)

ABES Institute of Technology, Ghaziabad

Class XII: 89% (2021)

Rani Laxmi Bai Memorial School, Lucknow

CGPA: 7.29/10

Jun 2022 – Jun 2026

Class X: 91% (2019)