SHIVAM SHARMA

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SUMMARY

AI Engineering graduate with hands-on experience in machine learning, deep learning, computer vision, and IoT. Skilled in building scalable AI systems, gesture-controlled interfaces, and cloud deployments. Seeking roles in AI, robotics, computer vision, ML, or autonomous systems.

EDUCATION

Master of Science in Robotics and Autonomous Systems (AI) *Expected: May 2027*
Arizona State University, Tempe, AZ

Bachelor of Technology in Artificial Intelligence Graduated May 2025,
Amity University, Noida, Uttar Pradesh, India 7.9 CGPA

TECHNICAL SKILLS AND CERTIFICATIONS

Programming Languages: Python, MySQL, R language, JavaScript, C.

Machine Learning Libraries: TensorFlow, PyTorch, Keras, SciPy, NumPy, Pandas, Matplotlib, Scikit-Learn, and Seaborn.

Computer Vision Libraries: OpenCV, Pillow, Mediapipe.

NLP libraries: NLTK, Transformers (Hugging Face, GPT Models).

Certifications: Applied AI (IBM, Coursera), Python For Data Science (NPTEL), Microsoft AI Participation, Aerial Robotics(University of Pennsylvania).

PROFESSIONAL EXPERIENCE

HCL Technologies, Noida, Uttar Pradesh, India: AI Engineer Intern January 2025–June 2025

- Developed a supervised machine learning model to predict customer churn using Random Forest and Gradient Boosting models on a dataset of 500K customer records.
- Performed extensive feature engineering (behavioral, transactional, and demographic features), which improved model AUC by 25% over the baseline logistic regression.
- Optimized model performance by implementing hyperparameter tuning with GridSearchCV in Python using scikit-learn, Pandas, NumPy, and Jupyter Notebooks.

NullClass Technologies, Noida, Uttar Pradesh, India: Data Science Intern April 2024–June 2024

- Developed a **Multi-Attribute Face Classifier GUI** using VGG16 & MobileNetV2 to detect age, nationality, emotion, and dress code from facial images with **95% accuracy**.
- Built deep learning-based systems for **emotion detection** from human faces, **female voice**, and **animal images**, achieving **accuracy between 91–94%**.
- Created an **AI-powered vehicle sleep detection and age prediction system** using facial analysis, reaching **95% accuracy** in real-time driver monitoring.

ACADEMIC PROJECTS

Smart Interaction: Gesture-Based Control with IoT and Virtual Input October 2024 – Feb 2025

Led a team to develop a gesture control interface, improving user interaction for smart devices through intuitive control.

- Developed an **AI-powered gesture recognition system** using Mediapipe, OpenCV, and Arduino for real-time multi-user hand tracking and IoT device control.
- Achieved **94% gesture classification accuracy** on a custom dataset of 1,000+ samples, with an average response latency of ~75ms enabling smooth virtual input and smart device interaction.

AutoML Universal System: Scalable Adaptive Machine Learning May 2025–Aug 2025

Designed and implemented an AutoML system supporting supervised, unsupervised and deep learning workflows with automated hyperparameter optimization.

- Engineered an end-to-end **AutoML pipeline** integrating supervised, unsupervised, and deep learning (DNN) workflows with **Optuna-based hyperparameter tuning** and automated model selection.
- Applied advanced preprocessing techniques including **SMOTE**, feature selection, and outlier handling; evaluated performance using **task-specific metrics** (accuracy, F1-score, RMSE, silhouette score) with **5-fold cross-validation** for robust generalization.

CineReco: AI-Powered Hybrid Movie Recommender (Deep Learning + NLP) May 2023–Aug 2023

Developed an AI-powered movie recommender using deep learning with hybrid collaborative and content filtering.

- Developed a hybrid movie recommendation system using Sentence-BERT and collaborative filtering, achieving **Precision@5 = 0.89** and **NDCG@5 = 0.92**. Implemented NLP-based preprocessing, semantic similarity scoring, cosine fusion, and cold-start handling via content-based embedding.