

# AKASH G PATIL

Machine Learning Engineer specializing in Deep Learning, model training and deployment of scalable AI systems. Bengaluru, Karnataka | [akashgpatil23.05@gmail.com](mailto:akashgpatil23.05@gmail.com) | P: +91 9108072305  
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## EDUCATION

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### JSS Academy of Technical Education

Bachelor of Engineering

Major in Computer Science; Specialization in Artificial Intelligence and Machine Learning

Cumulative GPA: 9.15/10

Relevant Coursework: Data Analysis, Software Engineering; Operating Systems; Algorithms; Artificial Intelligence

Bengaluru

Expected Aug 2027

## TECHNICAL SKILLS

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- **Programming:** Python (Advanced), C++, SQL
- **Deep Learning:** TensorFlow, Keras, OpenCV
- **Machine Learning:** Scikit-learn, Model Evaluation (Precision/Recall, Confusion Matrix)
- **Data Processing:** Pandas, NumPy
- **Deployment & Tools:** Streamlit, Git, Jupyter Notebook
- **Core CS:** Data Structures & Algorithms (300+ problems), OOP, DBMS, OS

## EXPERIENCE & PROJECTS

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### **BUILDING SILENCE – REAL TIME SIGN LANGUAGE DETECTION**

Aug 2025

- Developed a Deep Learning model using CNN and LSTM architectures for real-time gesture classification.
- Built data preprocessing and feature extraction pipeline using OpenCV and MediaPipe.
- Performed model training, validation, and hyperparameter tuning on 5,000+ samples.
- Achieved 92% validation accuracy with regularization and early stopping techniques.
- Implemented real-time inference pipeline for webcam-based deployment.

### **KRISHIRAKSHAK - AI-DRIVEN CROP DISEASE PREDICTION & MANAGEMENT**

Dec 2025

- Designed a Convolutional Neural Network (CNN) for multi-class image classification on 10,000+ labeled crop images.
- Applied data augmentation and dropout regularization to reduce overfitting.
- Evaluated model performance using precision, recall, and confusion matrix.
- Achieved 92% validation accuracy.
- Deployed trained model into a production-like Streamlit inference application.

### **F1 RACE INTELLIGENCE – AI-Driven Race Analytics System**

- Engineered data ingestion pipeline using FastF1 API to collect and preprocess multi-season race telemetry data.
- Performed feature engineering on lap times, tire strategies, and stint durations for performance modeling.
- Applied statistical analysis and predictive modeling techniques for race outcome insights.
- Built interactive Streamlit dashboard for visualization and decision-support simulation.
- Structured modular analytics pipeline for scalability and reproducibility.

## CERTIFICATIONS

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- **Machine Learning Specialization** – Andrew Ng

- **Generative AI with LLMs** – DeepLearning.AI
- **Deep Learning Specialization** – DeepLearning.AI
- **IBM Data Science Professional Certificate** – Coursera

## **ACHIEVEMENTS**

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- Secured Top 15% rank in a SMART INDIA HACKATHON(2025)
- Active member of AIKYAM(AI/ML Student Club), JSSATE; organized 3+ workshops and coding hackathons
- Recognized for consistent academic excellence and leadership in AI/ML initiatives.