

# Akshaj Tiwari

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## EXPERIENCE

### SMART INDIA HACKATHON | TEAM LEAD

Aug 2025 – Sep 2025 | India

- Led a team of 6 members, overseeing project development and coordination throughout the hackathon.
- Cleared internal college-level competition and advanced to the national stage of SIH.
- Achieved a position among the top 25 teams selected from all participating teams in the institution.
- Managed project timelines, delegated tasks, and delivered functional prototype under tight deadlines.

### NCIIPC AI GRAND CHALLENGE | CORE TEAM MEMBER

Sep 2025 – Oct 2025 | India

- Contributed to development of AI layout detection model as part of core technical team.
- Collaborated on data set preparation, model architecture design, and performance optimization.
- Applied advanced machine learning techniques to improve detection accuracy within project timelines.

## PROJECTS

### QUANTUM CIRCUIT SIMULATOR | WEB DEVELOPMENT

Nov 2024 | GitHub

- Built web-based quantum circuit simulator with React frontend and Flask backend for interactive circuit visualization.
- Integrated IBM QPUs, IonQ, Rigetti, and local simulators (Aer, Cirq, PennyLane) with automatic fallback mechanisms.
- Implemented custom gate creation, circuit backup management, and detailed result visualization with modular code.
- Designed scalable architecture supporting real-time simulation and secure QPU credential handling.

### DIABETIC RETINOPATHY DETECTION | CNN

Aug 2025 | GitHub

- Developed robust classification model handling 5 DR severity levels with clean, modular, and efficient code.
- Designed scalable pipelines for data processing and model training with a focus on reproducibility.
- Achieved high accuracy through optimized preprocessing and design of the model architecture.

### MULTILINGUAL CHATBOT | NLP

Aug 2025 | GitHub

- Developed a multilingual chatbot supporting five regional Indian languages that supports dynamic input and output.
- Implemented a RAG system to search database and generate contextually accurate responses.
- Real-time translation of languages for seamless user interaction across languages.

## EDUCATION

### PRANVEER SINGH INSTITUTE OF TECHNOLOGY

B.TECH IN COMPUTER SCIENCE  
Expected 2028 | Kanpur, India

## SKILLS

### PROGRAMMING

Core Languages:  
C • C++ • Python  
Web:  
HTML • CSS • JavaScript

### DATA ANALYSIS

Numpy • Pandas  
Matplotlib

### ML & AI

PyTorch • TensorFlow  
Keras • scikit-learn  
OpenCV

### TOOLS

Git • GitHub • Linux  
Jupyter • MongoDB

## CERTIFICATIONS

Machine Learning Specialization

*DeepLearning.AI*  
Deep Learning Specialization  
*DeepLearning.AI (In Progress)*  
Web Development  
*Coursera*  
100 Days of Python  
*Udemy*

## COURSEWORK

Data Structures & Algorithms

## LINKS

GitHub:// [akshajtiwari](https://github.com/akshajtiwari)  
LinkedIn:// [akshaj-tiwarii](https://www.linkedin.com/in/akshaj-tiwarii)  
Kaggle:// [akshajtiwariii](https://www.kaggle.com/akshajtiwariii)