# ANURAG PATHAK

pathakanurag445@gmail.com | +91 9457003838 | LinkedIn | GitHub

## **Objective**

Enthusiastic Machine Learning Engineer specializing in AI and advanced analytics. Skilled in deploying innovative solutions and leveraging data-driven insights to resolve complex challenges. Seeking to contribute expertise in developing intelligent systems and scalable applications.

#### Education

B.Tech in Computer Science - Al & ML, GLA University Mathura

CPI: 8.27

Christ The King Inter College, ICSE Board, Class XII

Percentage: 82.6%

Relevant Coursework: Generative AI with LangChain, Hugging Face (Udemy), IBM Professional Machine Learning Course (Coursera), Artificial Intelligence Training (Appwars Technologies)

### **Experience**

AI/ML Intern, HiCoder Pvt. Ltd., Hyderabad (Remote)

January 2025 - Present

Expected Graduation: 2026

Completed: 2022

- Engineered a certification generation system using LangChain, OpenAI, and Fabric.js, enabling dynamic certificate design creation. Reduced manual design time by **80%**.
- Delivered Canva.js-compatible JSON outputs with accurately positioned elements, improving design efficiency by 30%.

Summer Intern, IOCL Mathura Refinery, Mathura, Uttar Pradesh

June 2024 - July 2024

- Designed and implemented a feature to display the assigned worker's name for township residents submitting maintenance complaints, increasing transparency for over **10,000 users**.
- Developed a system allowing contractors to reassign workers from the database, reducing downtime by **20**% and improving maintenance response times.

Technical Program Committee (TPC) Member, CICN 2024, CSNT 2025 and MPCON 2025

• Reviewed and contributed to the peer review process, ensuring high-quality selections for international conferences.

# **Projects**

### **Refining CAPTCHA Using Machine Learning**

Captcha.com

Technologies: Geolocation API, HTML5, Random Forests, Flask

- Designed a next-gen CAPTCHA system employing the Geolocation API for autofill, achieving 95% accuracy in distinguishing bots from humans.
- Devised a Flask-based, user-friendly interface for secure authentication, integrating behavioral metrics like mouse and typing speed.

ScriptoSolution GitHub

Technologies: Convolutional Neural Networks (CNN), Artificial Neural Networks (ANN), Naive Bayes

- Built a Doctor Recommendation System capable of analyzing prescriptions to suggest specialists, significantly enhancing patient care.
- Utilized advanced ML algorithms for extracting and analyzing medicinal data, ensuring accurate predictions.

#### **Autonomous Fleet Management System for Route Optimization**

Link

Technologies: Reinforcement Learning, Deep Q-Network (DQN), Computer Vision, Python

- Developed an Al-powered fleet management system using Reinforcement Learning (DQN) for dynamic vehicle routing optimization, integrating warehouse cameras for real-time congestion detection.
- Achieved an 18–25% improvement in route efficiency over traditional algorithms, reducing delivery delays and fuel consumption.

### **Publications**

Location-Based CAPTCHA: Enhancing Bot Detection Using Live Geolocation Autofill Abusive Content Detection with LangChain Integration Using Fine-Tuned RoBERTa Federated Learning for Kidney Disease Prediction Using Combined LSTM and MLP Models

DOI's Paper Link

### **Skills**

Programming Languages: Python, Java

**Machine Learning**: Logistic Regression, Linear Regression, Natural Language Processing (NLP), K-Nearest Neighbors (KNN), Large Language Models (LLMs), CNN, Decision Trees, Federated Learning

Tools & Technologies: MongoDB, LangChain, Hugging Face, Flask, Streamlit

**Soft Skills**: Leadership (managed large-scale events), teamwork (collaborated on diverse projects), problem-solving (optimized workflows), communication (technical presentations), adaptability (mastered emerging tools).

**Languages**: English (C1 - Advanced)

All Certificates

- Secured second place in IBM ICE Day competitions for poster and technical paper presentations (2022, 2023).
- Finalist at Glitch Tech Fest Hackathon, Gautam Buddha University.
- Demonstrated expertise in dynamic web applications by successfully developing and deploying scalable projects.
- Spearheaded logistical operations for Srijan, the largest GLA University event, managing over 2700 participants.
- Elected General Secretary for Hostel Affairs, driving improvements in student welfare initiatives.