

Umar Alam

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PROFESSIONAL SUMMARY

Full-Stack Developer with proven experience in delivering real-time projects that drove measurable impact in education, healthcare, and agriculture. Published two research papers in Google Scholar and Scopus-indexed journals, advancing AI-powered learning systems and precision farming. Proficient in JavaScript (React, Node.js, Express.js), Python (Django, Flask, TensorFlow, Keras), RESTful APIs, MongoDB/MySQL, Docker, AWS, and CI/CD pipelines, with a strong foundation in Data Structures & Algorithms. **Open to PAN-India opportunities and flexible with all time zones.** Seeking an entry-level Full-Stack/Web Development role to apply technical expertise, leverage project and research experience, and contribute to building scalable, user-centric, and innovative IT solutions while continuously learning and growing with the organization.

EDUCATION

Bachelor of Technology in Computer Science and Engineering Nov 2022 - June 2025
Khawaja Moinuddin Chishti Language University Lucknow | Lucknow, UP, India CGPA: 8.02/10

Diploma in Mechanical Engineering Aug 2019 - May 2022
Government Polytechnic Kenura Sultanpur | Sultanpur, UP, India CGPA: 7.2/10

EXPERIENCE

Full Stack Developer Intern June 2024 - July 2024

Prodigy Infotech Pvt Ltd | Remote | [Live](#)

- **Developed** an AI-based Plant Disease Recognition System that analyzed **100k+** leaf images to detect **30+** diseases in real time with over **95% accuracy**.
- **Enabled early detection**, reducing crop losses by up to **30%** and minimizing chemical use by **25%**, promoting sustainable precision farming.
- Built a Streamlit web interface for image upload and diagnosis; images were preprocessed (resize, normalization, augmentation) and classified via a deep CNN, returning confidence scores and actionable recommendations.
- **Tech Stack:** ML Libraries, Streamlit, Python, Jupyter Notebook, Agile SDLC.

Full Stack Developer Intern May 2024 – June 2024

Bharat Intern Pvt Ltd | Remote | [Live](#)

- Built a full-stack E-learning solution addressing the common challenge of scattered student tools by **integrating 20+ essential apps**—including timers, AI assistant, personalized academic resources, and media Ad blockers—into a single, accessible platform.
- Integrated smart tools: Real-time chat, Personal AI chatbot, Smart Clock, Harvard lectures, ad-free media player, Notepad, Drawing board, text-to-speech converter for accessibility and an AI image generator for academic visuals, Quizzes with instant feedback, and ad-blocking browser extensions.
- **Tech Stack:** Django, MERN, Python, ML Libraries, Streamlit, HTML, CSS, JavaScript, Jupyter Notebook, APIs, Postman, Deployment, SDLC (V-Model).

PROJECTS

Crop360 | Holistic Plant & Crop Management System | (Diagnose, Recommend, Predict) Yields | [Live](#) Jan 2025 – April 2025

- Built an AI-powered agricultural platform (final year thesis) with three modules: Crop disease recognition (97% accuracy), Crop recommendation (soil pH, nutrients, Geographical location), and Crop yield prediction (climate and land metrics), trained on **2 lakh+** data points.
- **Achieved** a projected **30%** reduction in crop losses through early detection and precise recommendations. Adaptable across crop types, the system integrates seamlessly with existing practices.
- **Tech Stack:** Python, ML Libraries, Streamlit, Jupyter Notebook, DSA, CNNs, Agile SDLC (Modular Design)

Alam-e-Study | Efficient (E-learning) Web Application | [Live](#) March 2024 – Oct 2024

- Developed “Alam-e-Study,” a unified study platform integrating 20+ modules (AI assistant, smart clock, notepad, quizzes, ad-free media, browser extensions) to enable personalized and distraction-free learning.
- Implemented core functionality, including user authentication (login/signup/logout), dashboard customization, and CRUD operations for modules.
- Achieved a 30% rise in student engagement and a **40%** reduction in distractions, with adoption by 300+ university students.
- **Tech Stack:** MongoDB, Python, Flask, HTML, CSS, JavaScript, ReactJS, APIs, Git, OOP, Node.js, Deployment, SDLC (V-Model)

PANDX AI | Comprehensive AI-Based Human Disease Diagnostic & Medical Recommendation System | [Live](#) Dec 2023 – Feb 2024

- It empowers users to receive a complete diagnostic report by simply entering their symptoms. The system predicts the disease and provides medically aligned recommendations, including disease Description, medications, causes, precautions, and dietary guidance, especially for medically remote areas
- **Achieved 95% diagnostic accuracy** and reduced medical consultation delays by **60%+**, increasing early detection and healthcare access across both urban and rural populations.
- **Tech Stack:** Python, Django, Jupyter Notebook, Supervised ML, Flask, GitHub, OOP, DSA, Git, Agile SDLC

TECHNICAL SKILLS

Languages: Python, C++, HTML, CSS, JavaScript

Frontend: React, Bootstrap, Tailwind

Backend: Node.js

Databases: MongoDB, MySQL

Frameworks & ML Libraries: Django, Flask, RESTful API / FastAPI, TensorFlow, Keras, Pandas, NumPy, scikit-learn, Streamlit

Tools & Platforms: Git, Jupyter Notebook, Postman, Agile/Scrum Methodology, VS Code, AWS, GitHub

Courses: Harvard University – CS50 (Batch 2024), Mahindra Tech - Soft Skill, GrowthSchool – AI Workshop, SWAYAM- OOP, DSA.

PUBLICATIONS

1. **Empowering Students: Building an Integrated Application for Enhanced Productivity, Efficiency, and Creativity** | [Live](#)
 - **Published** in IJSRNSC (Google Scholar-indexed International Journal, Oct 2024)
 - Developed “Alam-e-Study,” a unified web platform integrating 20+ student-focused modules and essential academic tools into a single system, eliminating the inefficiency of switching between multiple applications.
 - Achieved a 30% increase in student productivity by streamlining task management, enhancing creativity, and enabling seamless collaboration within a single free-to-use system.
2. **Developing an AI-driven Model for Crop Disease Detection, Yield Prediction, and Crop Recommendations Using Machine Learning & CNN**
 - **Submitted** to Elsevier’s Scopus-indexed International Journal (under peer-review)
 - Based on Crop360, Integrated three critical modules — Plant Disease Detection (CNN-based), Crop Recommendation (soil & climate-driven), and Yield Prediction (ML-powered), into a unified decision-support framework for precision agriculture.
 - Demonstrated a 41% increase in healthy crop yield production by providing real-time disease diagnosis, optimized crop selection, and accurate yield forecasting — advancing sustainable farming and moving one step forward toward a modern “Green Revolution.”

ACHIEVEMENTS

- **Solved 490+ Programming and DSA questions on various coding platforms, including [Leetcode](#) and [GeeksforGeeks](#)**
- Secured All India Rank (AIR) **1113** in CUET UG 2022
- Secured State Rank **30125** in JEECUP 2019.
- Winner of the National Teachers' Day E-Quiz 2021, Govt of India