

Ashwani Kumar Sharma

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<https://github.com/Aks1234-tech> | Portfolio

Profile Summary

Dynamic and results-driven Computer Science student with strong expertise in Artificial Intelligence, Machine Learning, Cybersecurity, Blockchain, and Software Development. Nationally recognized as the Winner of Smart India Hackathon (SIH 2024), securing a prize of ₹1,00,000 for developing an innovative solution to a real world problem. Serving as Technical Secretary and Secretary of the IEEE Student Branch, with proven leadership in managing teams, organizing technical initiatives, and driving collaborative innovation. Skilled in Java, Web Development, and emerging technologies, with a passion for impactful projects in AI-driven security, healthcare, and sustainable development. Adept at blending research, problem-solving, and innovation to contribute meaningfully to academic, professional, and societal growth.

Education

Sir Padampat Singhanian University, Udaipur,
Bachelor of Technology (B.Tech) in Computer Science

Sept 2022 – June 2026

- CGPA: 8.7/10
- Relevant Courses:** Cybersecurity, Machine Learning, IoT Systems, Java and Mern Stack Developer

Skills

- Programming Languages:** Java, Python, C++ , Solidity
- Web Development:** HTML, CSS, Javascript, React, Spring, Springboot
- Database:** SQL, MongoDB
- Data Analytics and Visualization:** Python, Numpy, Pandas, Matplotlib, Seaborn, Plotly
- Tools/Framework:** Spring, Git, Docker, Matlab, Tensorflow
- Concepts:** Machine Learning, Deep Learning, Cybersecurity, Iot, Blockchain

Experience

AI/ML Research Intern – ResAiShala Technocrats India Private Limited

(Feb 2025 – Present)

- Developed ML and DL hybrid models tailored for real-world applications.
- Drafted research methodology documents and technical whitepapers.
- Co-authored research papers on optimization and benchmarking of AI algorithms.

Projects

AI Email Generator (Spring Boot & React)

[Github](#)

- Developed a full-stack application integrating Spring Boot (backend) and React (frontend) to generate context-aware emails using AI models.
- Implemented user-friendly features such as customizable templates, email tone selection, and seamless text generation for productivity.

Crop Yield Prediction (Hybrid ML & DL Model)

- Designed a predictive system using Machine Learning and Deep Learning algorithms (Random Forest, XGBoost, CNN, Stacking) for accurate crop yield estimation.
- Utilized datasets from the Soil Health Card Scheme and public crop datasets, applying K-means clustering, feature engineering, and evaluation metrics (Accuracy, F1, RMSE, MAE).

False Data Injection Attack Detection System (Internship Project)

[Github](#)

- Researched and developed a detection mechanism against false data injection attacks (FDIAs) targeting IoT-enabled smart grids and sensor networks.
- Applied ML-based drift detection techniques to identify anomalies and secure data integrity during a 2-month research internship.

Blockchain-Based E-Waste Management System

- Created a decentralized platform using Ethereum, Solidity, and IPFS for secure and transparent e-waste tracking.
- Enabled real-time waste collection, recycling traceability, and incentive mechanisms, improving accountability in e-waste management.

IoT-Based Smart Solar Tracking System (SIH 2024 – Winner)

- Designed an intelligent solar tracking system using MATLAB Simulink, Simscape Multibody, RTC, and IoT integration, optimizing solar panel orientation for maximum efficiency.
- Nationally recognized as Winner of Smart India Hackathon 2024, awarded ₹1,00,000 by MathWorks India Pvt. Ltd., MoE, and AICTE for innovative renewable energy solutions.

Achievements

- Winner, Smart India Hackathon 2024 – IoT-based Solar Tracker using MATLAB & Simulink; Nationally recognized and awarded ₹1,00,000 by MathWorks India Pvt. Ltd., MoE & AICTE.
- 1st Runner-up, ByteClash and University Level Hackathon.
- Main Co-ordinator for Faculty Development Program and International Research Convention.
- AI/ML Research Intern at ResAiShala Technocrats India Pvt. Ltd. with ongoing research publications.
- Developed real-time integrated platforms combining ML, IoT, Android, and blockchain technologies.
- Certification: Foundation of Data, Data Everywhere and Data Analytics Course (Coursera).