

SHRESTH SENWAL

Manipal University Jaipur

Phone: +91 9999885717

Email: shresth.senwal@gmail.com

GitHub: github.com/Shresth-Senwal

OBJECTIVE

Dedicated AI/ML engineer and AI-enabled full stack web developer focused on using technology to solve real-world problems. Collaborative, always eager to learn, and motivated by new challenges in AI, robotics, and web development.

EDUCATION

Bachelor of Technology in Information Technology (3rd Year)

Manipal University Jaipur, Jaipur

Expected Graduation: May 2027

- Relevant Coursework: Artificial Intelligence, Machine Learning, Robotics
- Member: IEEE RAS (Robotics and Automation Society)
- Technical Secretary, IEEE RAS MUJ (May 2025 – Present)

TECHNICAL SKILLS

- **Programming:** Python, TypeScript
- **Libraries & Tools:** NumPy, Pandas, Matplotlib, PyTorch, React, Next.js 15, Node.js
- **Web Development:** Full stack application development, RESTful APIs, frontend with React/Next.js, backend with Node.js
- **Deep Learning:** Convolutional neural networks, computer vision, model deployment
- **Robotics & Systems:** UAV design, hardware-software integration
- **Cloud:** Experience with modern cloud and DevOps tools

EXPERIENCE

AI/ML Intern, Innominds

Remote | May 2025 – Present

- Assist with machine learning and AI projects, including computer vision and analytics.
- Collaborate with team on optimizing model performance and integrating solutions into real-world applications.
- Engage in code discussions and contribute to the team's understanding of AI/ML best practices.

Technical Secretary, IEEE Robotics and Automation Society, MUJ

Manipal University Jaipur | May 2025 – Present

- Support the society's technical activities, documentation, and events.
- Encourage collaboration, foster technical engagement, and share knowledge among student members.
- Help organize robotics and automation workshops, promoting a community of learners.

Head of UAV Design, IEEE Robotics and Automation Society, MUJ

Manipal University Jaipur | July 2024 – May 2025

- Led a team developing UAV systems, contributing ideas and engineering solutions alongside peers.
- Organized technical workshops on robotics and hardware integration.
- Emphasized collaborative learning and sharing of best practices in UAV design.

PROJECTS

- **Legally AI Paralegal**
Developed an AI-powered paralegal tool that automates legal research, document analysis, and case briefing for legal professionals.
- **Fintrack GenZ Vision**
Built a modern, AI-powered personal finance app for Gen Z with gamified savings, real-time analytics, secure auth, and a mobile-first UI.

- Prism – AI-Powered Topic Analysis Platform**
 Developed an AI-based platform that aggregates and analyzes digital content, delivering insights, trends, and diverse perspectives in a user-friendly interface.
- MCP Enabled AEMT (Autonomous Error Management Tool)**
 Built a tool for real-time system error detection and remediation, leveraging AI and multicore processing.
- MedSecure – HIPAA-Compliant Medical Record Exchange Platform**
 Created a secure web platform using Next.js 15 and TypeScript for managing and sharing medical records while ensuring compliance and data privacy.
- ML Model for Detecting Safety Gear on Job Sites**
 Designed a computer vision solution for real-time PPE compliance monitoring, enhancing job site safety.
- Automatic Pharmaceutical Workflow Automation Tool**
 Automated complex, document-heavy pharmaceutical processes for greater efficiency and compliance.
- Hybrid VTOL Drone**
 Led the design and ongoing development of a VTOL drone with unique transformation capabilities; participated in patent filing and fostered learning about aerospace systems.
- YOLOv9 Implementation for Object Detection**
 Developed a real-time object detection tool using PyTorch, focusing on accuracy and efficient performance.
- Implementation of Pi-hole for Home Network Security**
 Built a Raspberry Pi-based DNS sinkhole, blocking ads and malicious domains to reinforce network safety.
- Line-Following Robot**
 Designed a high-speed line-following robot with Arduino UNO, experimenting with advanced control algorithms in a competitive setting.

HACKATHONS

- **Winner, Best Tech Category – Nebula Nexus Hackathon**

Cosmos Club, MUJ

- Developed a mobile-first Gen Z finance management website, prioritizing usability and real-time insights.

- **Finalist – Hackerzstreet Hackathon**

IEEE CS MUJ

- Created MedSecure, a HIPAA-compliant medical record management and exchange platform.