

SHASHANK PANDEY

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EDUCATION

Manipal University Jaipur

Expected: 2026

Bachelor of Technology in Computer and Communication Engineering

Cumulative GPA: 9.23 | Highest Semester GPA: 9.9

SKILLS & ACHIEVEMENTS

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|--------------------|---|
| Languages: | Python, C++, JavaScript, C, SQL |
| AI/ML: | Scikit-learn, PyTorch, TensorFlow, SHAP, LLM Integration, Vision-Language Models (VLM) |
| Tech Stack: | FastAPI, React, Node.js, MongoDB, REST APIs, CI/CD, Docker, Git/GitHub |
| Core CS: | Data Structures & Algorithms, Object-Oriented Programming, Operating Systems, Computer Networks |
| Achievements: | Dean's List Award (4x Recipient) Chosen for the competitive Winter Internship at ISRO SDSC (2024) |
| Certifications: | NPTEL Elite Certified in Data Analysis & Algorithms (DAA) and RDBMS CCNAv7: Intro to Networks, SRWE CCNA: Enterprise Networking, Security, and Automation |
| Comp. Programming: | Solved 250+ problems on LeetCode |

EXPERIENCE

Larsen & Toubro (L&T) - AI Intern

May 2025 - Present

- Developed an agentic AI framework using the Model Context Protocol (MCP), reducing manual task execution time by 30% through intelligent workflow orchestration.
- Designed and deployed a scalable FastAPI backend to coordinate 100+ executions/day with Playwright and Google Calendar integrations in a distributed system.
- Enhanced multi-modal accuracy by 25% through integration of Vision-Language Models (BLIP-2, DETR), driving data-driven insights.
- Increased system reliability and multi-step task success rates by 40% using robust debugging pipelines, validation testing, and fault-tolerant planning with LLaMA3-70B.

PROJECTS

Agentic Desktop Assistant (MCP Framework)

Python, PyQt6, LangChain, LLaMA3

- Built a cross-platform AI assistant that executed 50+ desktop tasks (GUI, file management, document creation, data analysis, device control) accessible via GUI and secure web portal.
- Streamlined task pipelines with a distributed reasoning system — Groq-powered planner for orchestration and Playwright for web automation — boosting throughput by 35%.

ShopSmart Pro - Walmart Sparkathon

Python, FastAPI, MongoDB, JavaScript, LLM Integration

- Designed a smart retail assistant supporting voice, image, and text-based shopping, enabling real-time product search and automated cart management.
- Improved visual product recognition accuracy to 90% by consolidating BLIP and DETR, enhancing user experience and catalog coverage.

RAG-based SEBI Chatbot (SEBI Saathi) - SEBI Hackathon

Python, LangChain, LlamaIndex, ChromaDB

- Engineered a compliance-driven RAG pipeline with SEBI Master Circulars, cutting model hallucinations by 75% through explainable AI.
- Incorporated fine-tuned LLMs to deliver citation-backed, regulation-aligned outputs, ensuring 100% verifiability for financial compliance.
- Conducted system-level testing and validation, improving query accuracy and boosting user trust during regulatory audits.

Collaborative Design Studio - Dell Hack2Hire

MERN Stack, TypeScript, NextUI, CI/CD

- Forged a full-stack web-based editor using React, Node.js, and MongoDB to model and visualize data flows between interconnected applications, enabling real-time collaboration across teams.
- Implemented 'Designer' and 'Viewer' modes with role-based access control, allowing users to intuitively create, edit, and view data flow diagrams with integrated REST API support.
- Integrated a scalable architecture with TypeScript, Zod for schema validation, and NextUI for a responsive UI, enhancing system clarity, security, and usability.