TANISH RAJ SINGH

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EDUCATION

B.Tech in Computer Science and Engineering, Manipal University Jaipur	2022 - 2026

EXPERIENCE

Software Engineering Intern — May 2025 - July 2025
Celebal Technologies — *Jaipur*

- Developed scalable, reusable React.js components aligned with enterprise design systems and a11y (WCAG/ARIA) best practices
- Adopted Redux Toolkit to streamline state management, reducing defects and re-renders by 60%, and maintained a high-quality, scalable codebase via GitHub with CI/CD automation

Research and Development Intern — June 2023 - July 2023
Malviya National Institute of Technology Jaipur — *Jaipur*

- Investigated real-time A2A communication in the metaverse via MFCF leveraging 6G technologies such as Federated Learning, Sem-Com and Edge computing reducing cloud latency by 75%
- Improved a GenAI packet inspector pipeline by achieving 93% accuracy in intrusion detection using LSTM and XGBoost, integrated with a local LLM gemma3 for preventive measure insights

PROJECTS

Ginni's Cart with AI helper | *ReactJS, MongoDB, Python, Flask-RESTful, LangGraph* | [GitHub](#)
Developed a full-stack E-commerce platform with JWT-based authentication and optimized advanced filtering, reducing footwear search latency by 75%. Integrated an AI-powered shoe assistant using Google Gemini for personalized recommendations, increasing user engagement by 60%. Enhanced UX with responsive routing, efficient state management, and direct DOM manipulation for seamless navigation.

EduBud : Smart Search Assistant | *Python, LangChain, Transformers, FAISS, Streamlit* | [GitHub](#)
Built a multimodal AI QnA system leveraging Google Gemini and Transformers for advanced PDF and text based retrieval with high accuracy. Optimized large-scale document search by engineering a RAG pipeline with FAISS and vector embeddings, reducing response latency by 60%. Deployed a production-grade Streamlit application with resilient web search fallback, ensuring comprehensive and reliable knowledge retrieval.

Connect4 : Distributed gaming system | *ReactJS, ExpressJS, SQL, Jenkins, Docker, Kafka, AWS* | [Link](#)
Implemented a fully containerized, cloud-native multiplayer platform engineered with microservices, real-time event streaming, and an end-to-end CI/CD pipeline. Implemented event-stream processing that handles 1000+ concurrent move events/sec with zero message loss, improving system resilience and latency by 40%. The system delivers low-latency gameplay, horizontal scalability, and automated deployments to AWS (EC2 + ECR).

SKILLS

Programming Languages :	Python, C, SQL, HTML, CSS, JavaScript
Core Concepts :	OOP, RDBMS, OS, Network Security, Algorithms, Machine Learning, Data Analysis, NLP, SDLC, Information Retrieval, Web Services, SOA
Libraries/Frameworks :	Pandas, NumPy, Sklearn, Matplotlib, Streamlit, ReactJS, Flask, FastAPI, LangChain, LangGraph
Tools :	MySQL, Power BI, MongoDB, Jenkins, VS Code, Google Colab, GitHub, Jupyter Notebook, MS Office, MS Copilot

CERTIFICATIONS

- Improved problem-solving and decision-making skills through **McKinsey Forward Program 2025** led business scenarios.
- Certified **Oracle Cloud Infrastructure Foundations Associate**, adapted to emerging technology through hands-on labs demonstrating agility with new technology.
- **Cisco CCNAv7** Switching, Routing, Wireless Essentials, Enterprise Networking, Security, and Automation certified.