Rahul Yadav
Junior Master of Technology in Computer Science and Engineering

SUMMARY

- Master of Technology in Computer Science and Engineering from IIT Roorkee with a CGPA of 9.24/10.0, specializing in AI/ML, Blockchain, and Full-Stack development.
- Proficient in advanced AI/ML frameworks including LangChain, HuggingFace Transformers, and fine-tuning large language models (LLaMA-2) with LoRA and PEFT techniques.
- Hands-on experience in blockchain development with Solidity, ZK proofs, Chainlink CCIP, and deploying secure cross-chain applications.
- Skilled in CI/CD automation with Docker, Kubernetes, and ArgoCD, leading Agile teams and delivering high-quality software with 100% smart contract test coverage.

TECHNICAL SKILLS

Main Technical Skills	Blockchain, Solidity, Smart Contract, DeFi
Programming Languages	Solidity
AI & Machine Learning	AI, AI-agents, LangChain, LangGraph, LLM
JavaScript Libraries and Tools	Ethers.js
Security	Security
Databases & Management Systems / ORM	Vector DB
Cloud Platforms, Services & Computing	AWS
Industry Domain Experience	Blockchain
Blockchain and Decentralized Software	Chainlink, Decentralization, DeFi, Ethers.js, EVM, Hardhat, NFT, Smart Contract, Staking, Sushiswap, Uniswap, Web3, ZK-Rollups
Deployment, CI/CD & Administration	CI/CD
Other Technical Skills	AI Agents: n8n, Consensus Algorithms, Full Stack Web Development, NodeJS Core, PancakeSwap, Slither, Truffle

WORK EXPERIENCE

Junior Software Engineer - EPAM Systems India Private Limited (Gym Management Platform)

Duration: January 2025 – June 2025
Summary:

- Developed a full-stack gym management platform using the MERN stack to serve over 1,000 active users with high availability
- The platform aimed to streamline gym operations and user management with a reliable and scalable infrastructure

Responsibilities:

- Engineered the full-stack application using MongoDB, Express.js, React.js, and Node.js.
- Architected serverless AWS infrastructure using S3 and DynamoDB with auto-scaling capabilities.
- Automated CI/CD pipelines using Docker, Kubernetes, and ArgoCD to improve deployment efficiency.
- Led a cross-functional Agile team of developers and QA engineers to deliver high-quality software.

Technologies: MERN stack (MongoDB, Express.js, React.js, Node.js), AWS (S3, DynamoDB), Docker, Kubernetes, ArgoCD, CI/CD

Blockchain Developer Intern - Timechain Labs (Bitcoin Protocol Development)

Duration: July 2023 – December 2023
Summary:

- Worked on developing SPV wallets, OPCODES, and sCrypt smart contracts as part of Bitcoin protocol training
- The project focused on enhancing Bitcoin network operations and cryptographic security measures

Responsibilities:

- Developed SPV wallets and smart contracts using sCrypt language.
- Optimized transaction processing algorithms to improve network latency.
- Implemented cryptographic security enhancements under mentorship.

Technologies: Bitcoin protocol, sCrypt, OPCODES, Blockchain development

ResearchBuddy – Multi-Agent AI Research System

Duration: February 2026 – March 2026
Summary:

- Developed a multi-agent AI research system orchestrating a 4-agent pipeline (Search, Reader, Writer, Critic) to automate research report generation and quality assessment
- The system integrates multiple data sources and provides real-time progress tracking with export capabilities

Responsibilities:

- Orchestrated multi-agent pipeline using LangChain and Gemini 2.5 Flash.
- Integrated Tavily Search API and BeautifulSoup4 for intelligent URL selection from multiple sources.
- Developed AI Critic chain for autonomous scoring and structured feedback on reports.
- Launched Streamlit UI with real-time progress tracking, markdown export, and CLI support.

Technologies: LangChain, Gemini, Streamlit, Tavily Search API, BeautifulSoup4

ScoreResume – AI Resume Extractor & Scorer

Duration: October 2025 – December 2025
Summary:

- Created an AI-powered resume extractor and scorer by fine-tuning LLaMA-2-7B model to extract structured JSON data from resumes
- The project aimed to automate resume parsing and scoring to reduce manual effort in recruitment processes

Responsibilities:

- Fine-tuned LLaMA-2-7B model using LoRA and 4-bit NF4 quantization for efficient training.
- Constructed instruction-tuning pipeline with custom token sequences for causal language modeling.
- Implemented PEFT and gradient checkpointing to reduce training costs and resource usage.

Technologies: LLaMA-2, LoRA, HuggingFace Transformers, PEFT, 4-bit NF4 quantization

HealthBridge – Cross-Chain Medical Data Transfer

Duration: July 2024 – September 2024
Summary:

- Delivered a secure cross-chain medical records transfer system using Chainlink CCIP to enable interoperability between Avalanche and Ethereum networks
- The project focused on privacy-preserving data sharing for healthcare providers

Responsibilities:

- Developed Solidity smart contracts for encrypted patient data transmission with role-based access control.
- Implemented zero-knowledge inspired access patterns to enforce privacy across heterogeneous blockchains.
- Deployed React dashboard to facilitate healthcare provider workflows.

Technologies: Chainlink CCIP, Solidity, React.js, ZK Proofs

TokenMaster – NFT-Based Ticketing Platform

Duration: January 2024 – June 2024
Summary: Launched a decentralized NFT-based ticketing platform on Ethereum Sepolia network using ERC-721 standard to prevent ticket fraud and enable seamless NFT minting

and payments.
Responsibilities:

- Developed Solidity smart contracts implementing ERC-721 tokens with anti-fraud mechanisms.
- Enabled NFT minting and MetaMask payment integration.
- Applied Hardhat and Ethers.js for comprehensive smart contract testing.

Technologies: Solidity, Hardhat, Ethers.js, ERC-721, Ethereum Sepolia

EDUCATION

- **Indian Institute of Technology (IIT) Roorkee**
  Master of Technology in Computer Science and Engineering – CGPA: 9.24/10.0
  July 2025 – Present

CERTIFICATION

- **Bitcoin Enterprise and Script Developer certifications**
  Validating distributed ledger architecture expertise