Ankita Singh

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EDUCATION

Indian Institute of Technology (ISM)   Dhanbad, Jharkhand
Master of Science in Mathematics and Computing   *Aug. 2022 - May 2024*
CGPA: 3.3/4.0 (4-point scale)

Patna Women's College   Patna, Bihar
Bachelor of Science in Mathematics (Hons.)   *Apr. 2019 - Apr. 2022*
CGPA: 3.9/4.0 (4-point scale)

TECHNICAL SKILLS

Languages: Python (PyTorch, NumPy, Pandas, Transformers), C++, Rust, JavaScript, SQL
Blockchain: Smart Contracts, Solidity, Ethereum, Zero-Knowledge Proofs, Cryptographic Primitives, Consensus Mechanisms, DeFi Protocols, Tokenomics, Distributed System, Liquidity Pools, Yield Farming, AMMs
AI & Machine Learning: Supervised/Unsupervised Learning, NLP, Semantic Analysis, Large Language Models, Vector Embeddings, HuggingFace, LangChain, AutoGPT, RAG, Transformers
Data Science: Statistical Analysis, Hypothesis Testing, Feature Engineering, Model Evaluation, Experimental Design, Data Visualization (Tableau, Matplotlib, Plotly), Data Processing
Research & Documentation: Technical Writing, Whitepaper Development, API Documentation, Literature Review

EXPERIENCE

Networth Corp   Nov. 2024 – Present
Data Scientist (Bangalore, Karnataka, India)
- Engineered a Python chunking module that reduced token usage by 35% and improved document retrieval speed by 42% across 500+ markdown documents, saving $5,000 monthly in API costs.

Infinite Analytics   Apr. 2024 – Oct. 2024
Data Scientist, Internship (Mumbai, Maharashtra, India)
- Analyzed campaign metadata for 30+ clients, developed 8 new KPIs, and optimized targeting strategies, resulting in 21% improved campaign efficiency and 9% cost reduction.

Indian Institute of Technology (ISM)   Jan. 2024 – Mar. 2024
Research Analyst, Internship (Dhanbad, Jharkhand, India)
- Pioneered a Graph Neural Network system analyzing 100+ yoga posture images, delivering 18% higher recognition accuracy and 12% reduced false positives, published in departmental research journal.

PROJECTS

Decentralized AI Legal Document Generator | *Blockchain, Ethereum, AI*   Feb. 2025 – Present
- Developed a legal document system integrating Claude AI with Ethereum smart contracts, reducing verification time by 70% and implementing Model Context Protocol (MCP) for secure AI-blockchain interaction without frontend dependencies.

DeFi Risk Analysis System | *Python, Machine Learning, Blockchain*   Dec. 2024 – Jan. 2025
- Created a predictive analytics tool analyzing 50K+ Ethereum transactions to assess DeFi asset risk, achieving 85% model accuracy and automating data pipelines for real-time market prediction.

**ML Zero-Knowledge Proof System** | *Cryptography, Python, ZKP*   Nov. 2024 – Dec. 2024
- Engineered a ZKP-based ML verification system using cryptographic commitments and digital signatures, enabling sub-second proof generation and 100% privacy of training data.

ACHIEVEMENTS

- Selected as one of only 50 participants nationwide for the prestigious Mathematics Training and Talent Search (MTTS) Programme in 2021, competing against 2,000+ applicants.
- Secured All India Rank (AIR) 535 out of 50,000+ test-takers in IIT JAM 2022, placing in the top 1% nationally.

RELEVANT COURSEWORK

- **Courses:** Data Structures and Algorithms, Database Management System, Data Analytics, Design and Analysis of Algorithms, Data Mining, Probability and Statistics, Inferential Statistics, Distributed System.

- **Online Certifications:** Machine Learning Specialization, Coursera ↗ ; CS120: Bitcoin for Developers, Saylor Academy ↗ , Credential ID 7391432686AS; Cryptography I, Stanford University ↗ ; Decentralized Applications (Dapps), Coursera ↗ ; Blockchain Basics, Coursera ↗ ; Smart Contracts, Coursera ↗ .