



EDUCATION

Year	Degree/Exam	Institute	CGPA/Marks
2027	B.TECH	IIT Kharagpur	8.63 / 10
2023	CBSE XII (AISSCE)	Campus Public School	90.2%
2021	CBSE X (AISSE)	DAV Public School	88.8%

INTERNSHIPS

Full Stack Developer Intern | wiZe | Incubated under IIM Bangalore (<https://wize.co.in/>) [Sep '24 - Nov '24]

(Objective: Built an AI-powered platform to provide smart, personalised career help for 50 lakh+ engineering students across diverse domains)

- Built a frontend using **Next.js** and **SSR** to improve load speed by **24%**, reduced latency by **120ms**, integrating **MongoDB** for data retrieval
- Reduced re-renders by **15%** by optimizing multi-step state management logic and integrating **15+ RESTful APIs** with robust flow control
- Engaged **7300+** users during alpha launch of an AI Resume Analyzer feature and evaluating **12+ resume** attributes across **5+ career** tracks

Research Intern | Deakin University

[May '25 - Present]

(Objective: Creating a quantum classifier using amplitude encoding for more accurate classification on real datasets via quantum hardware)

- Achieved **100% accuracy** on Iris subsets (classes 1 &2, 1 &3) using a **quantum interference circuit**, validating efficient quantum technique
- Built **75-gate circuits** with decomposed **Toffoli** and **SWAP** gates, enabling execution on IBM's **5-qubit** device under strict gate constraints
- Improved accuracy on non-linear datasets (Iris 2 & 3, circles) by **7%** using **quantum feature maps**, **2-state encoding**, and **QML** techniques

COMPETITION/CONFERENCE

Gold | Inter IIT Tech Meet 13.0 | Dream 11 - Fantasy Points Prediction

[Nov '24 - Dec '24]

(Objective: Built a GenAI-powered fantasy cricket platform to rank players and assign points using ensemble models and domain-rich features)

- Engineered **50+ features** on trends, contests, and team stats using CricSheet and ESPN data for format-wise modeling in T20, ODI and Test
- Designed ranking pipelines with **112.9 MAE**, **7.07 ACP** and **21 MAPE** in T20; processed **17000+** samples to model distribution and results
- Explored **10+ strategies** including Mixture of Experts, AutoML and tuning and deployed **3 XGBoost** models for optimal role-wise accuracy
- Built 5+ interactive GenAI features like **chatbots** and **summarizers**; integrated into a UI for team building, comparison, and model insights

Perplexity Hackathon (<https://cv-genie.onrender.com/>)

[May '25]

(Objective: Built an AI-powered CV analysis platform offering real-time resume feedback and optimization via semantic and structural review)

- Built full-stack app with **Next.js**, **Framer Motion**, **Express**, **postgreSQL** and added **UI animations**, and auth, with **87% Lighthouse** score
- Engineered **15+ custom APIs** and **10+ preprocessing pipelines** for resume parsing, feature extraction, and structured PDF data handling
- Integrated **Perplexity's Sonar** model to generate **5+ CV metrics** with real-time chart visualizations and server-side JSON-based analytics

PROJECTS

DeepFake Detection Platform | Self-project (<https://scan-x.vercel.app/>)

[Sep '24 - Oct '24]

(Objective: Built a secure blockchain-based AI platform to detect AI-generated content, analyzing text, images, and video for 2000+ users)

- Leveraged **React.js**, **Tailwind**, and **Three.js** to build a fast, interactive web app with onchain features via **Coinbase Wallet** and Base Kit
- Used **XceptionNet** for deepfake detection, achieving **0.96 F1**, **99.65% accuracy**, and **0.97 AUC**, outperforming **ResNet** and **EfficientNet**
- Utilized **DistilBERT** for AI-text detection (**98% accuracy**) and **Haar Cascade** for face detection (**25ms latency**, **100% frontal accuracy**)
- Deployed smart contracts using **Solidity** and **Hardhat** on the **Base Sepolia** testnet with **Pinata IPFS** for secure and decentralized storage

Financial Time-Series Forecasting with TradeGAN | Self-project

[Dec '24 - Jan '25]

(Objective: Modeled directional returns on equities using a GAN-based probabilistic forecasting framework for investment decision optimization)

- Implemented **TradeGAN** with **PnL**, **MSE**, and Sharpe objectives, boosting Sharpe Ratio to **3.18** from **2.09**, enhancing risk-adjusted returns
- Enhanced return sign classification using PnL, Sharpe-aware loss, achieving **85%** directional accuracy, **2.88-fold** PnL gain over LSTM models
- Applied gradient **norm-based** weighting to balance loss terms, reducing **MSE** by **64%**, improving volatility with **58%** lower STD in markets

AWARDS AND ACHIEVEMENTS

- Active competitive programmer on platforms like Codeforces (**Peak Rating: 1606**, handle: harsh21112005) and AtCoder (**Rating: 1418**)
- Won the Global Creative Prize in the **WalletConnect** Hackathon and ranked among the Top 3 overall finalist in the **ScrollHacks** Hackathon
- Won the Quadratic Prize pool in the Coinbase Hackathon (**Based India**) and cleared the intra-college round of the **Smart India Hackathon**
- Nationally ranked among the **top 2.7%** with an All India Rank (AIR) of **4944** out of 1.6 lakh+ competitive candidates in JEE Advanced 2023

SKILLS AND EXPERTISE

Skills: Competitive Programming | Algorithm and Data Structure | OOPS | Machine Learning | Deep Learning | MLOps | Web Development

Languages: C++ | C | Python | Javascript | TypeScript | Java | Solidity | Bash | YAML | Rust | Dockerfile Language | SQL | Markdown

Libraries/Frameworks: C++ STL | Langchain | Pytorch | Tensorflow | React.js | Next.js | Node.js | Express.js | ScikitLearn | HuggingFace

Tools/IDEs: Jupyter Notebooks | AWS | NeoVim | VS Code | Azure | Postman | Docker | GitHub | Vercel | Gradio | Render | Firebase | Git

COURSEWORK INFORMATION

Academic Courses: Programming and Data Structures | Probability and Statistics | Transform Calculus | Advanced Calculus | Linear Algebra Numerical and Complex Analysis | Programming and Data Structures Lab | Engineering Graphics and Design Lab | Fluid Flow Lab | DIY Lab

MOOCs: Data Structure and Algorithm | Machine Learning Specialization | Deep Learning Specialization | Generative Adversarial Networks Specialization | Mathematics for Machine Learning | Summer Of Quant from IIT KGP | Summer Analytics from IIT Guwahati | CP Camp

EXTRA CURRICULAR ACTIVITIES

Social and Cultural: Gold – Inter-IIT So-Cult Meet 6.0 (Street Play) | Gold – Spring Fest Street Play | Silver – Inter-IIT So-Cult Meet 6.0 (Short Film Making) | Silver – Open IIT Standup | Bronze – Open IIT Monologue | Member – Inter-IIT So-Cult Meet 7.0 (Street Play) | Acted in Fresher Productions of Pravah and Comedy Club | Acted in Films for the Film Society | Member – Rajendra Prasad Hall (GC Street Play)

Other: Associate Quant researcher at Quant Club | Member - Kharagpur Blockchain Society, Pravah, Technology Comedy Club, Spark4AI