



Manogya Singh Suryansh

Bachelor of Technology
Engineering Physics
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ACADEMIC DETAILS

Year	Degree / Board	Institute	GPA / Marks (%)
2023-Present	B.Tech in Engineering Physics	Indian Institute of Technology Delhi	7.37
2023	CBSE	P.D. Model Public School	95%
2021	CBSE	Kendriya Vidyalaya Coimbatore	96.4%

INTERNSHIPS

- **Jump Trading x TinkerTanker Systems Engineering Summer Bootcamp**
Jump Trading Group | Mumbai, India (On-site) May – June 2025
– Amongst **14 students selected from top IITs** for systems engineering training by TinkerTanker and Jump Trading
– Collaborated in team to build a High-Performance Chat Server and an Optimised Trade Data Query Engine
– Built elastic load testing and **CPU profiling** frameworks using **perf** and **FlameGraphs** to guide optimisations
– Using CPU profiling insights, **optimised** the client monitoring system to increase concurrent client cap. by **300%**

PROJECTS

- **FinTerminal - Multi-Agentic Ambient Portfolio Management Engine** *Oct-Dec 2025*
LangGraph, Agentic AI, NextJS, FastAPI, Docker, Apache Flink, Kafka | 14th Inter IIT Tech Meet [WebPage](#)
– Led IIT Delhi's Agentic AI team for the 14th Inter IIT Tech Meet to build a real time portfolio management engine
– Implemented **specialised fundamental, technical and live news analysis agents**, and an orchestration framework to build a fully autonomous ambiently reacting portfolio management system with hooks based on live market events
- **Matrix-Vector Operations in RISC-V Assembly** *November 2025*
RISC-V Assembly (RV32IMF) | Prof. Sumantra Dutta Roy | ELL305 - Computer Architecture [GitHub](#)
– **Coded a kernel in assembly** for 6×6 matrix-vector multiplication & determinant computation via QR decomposition
– Used aligned data layout, saved-register caching, and floating-point thresholding for correctness and efficiency
- **Bayesian Network Parameter Learning for Hail Forecasting** *Fall 2025*
Python, Bayesian Networks | Prof. Mausam | COL333 - Principles of Artificial Intelligence [GitHub](#)
– Implemented a Bayesian Network parameter learner for a 56-variable Hailfinder weather model, estimating missing conditional probability table entries from 10,000 historical records using an **expectation maximisation** procedure
– Coded a regex-based BIF parser, mixed-radix CPT indexing, **Markov-blanket posterior updates** for the E-step, and **Laplace-smoothed M-step** updates that preserved known CPT values while learning only the unknown parameters
- **Expression, Substitution, and Predicate Logic System** *January 2026*
OCaml, Modules, Symbolic Logic | Prof. Sanjiva Prasad | COL226 - Programming Languages
– Implemented a **modular OCaml representation** for algebraic expressions and first-order predicates, including signature checking, arity-safe AST validation, and structural computations over array-backed syntax trees
– Engineered efficient substitution/composition, path-based AST rewriting, and predicate-level update operators
- **Agentic AI based Live Technical Interviewer** *September 2025*
React, FastAPI, Judge0, WebRTC | Hackathon Project [GitHub](#)
– Built an AI technical interviewer with live coding, Judge0-based multi-language execution & adaptive questioning
– Implemented real-time code evaluation and reporting, scoring correctness, readability, style, and performance

ACHIEVEMENTS

- **Winner, IMC Low Latency Challenge** Placed 1st among 200+ teams in IMC's systems engineering competition *2025*
- **1st Runner Up, TRYST x Jane Street Quant Trading Challenge** 2nd highest profit in live market sim *March 2026*
- **Winner, Cloudflare Build AI for All (IITD Buildathon)** also won **\$25K** in Cloudflare credits. *Jan 2026*
- **Winner, INNOV8 Hackathon ARIES x eightfold.ai** AI recruitment hackathon during Tryst'24 *2024*
- **Winner, CRAC CTF** 1st among 50+ teams in the Key of Krypton cybersecurity CTF at IITD by CRAC *2024*
- **1st Runner Up, Kronos CTF** Solved all ZK and Blockchain challenges in BlocSoc IITD's Tryst CTF *March 2026*
- **JEE Advanced 2023:** Scored **183/360** with **All India Rank 2384** among 180,000+ JEE Main qualified students *2023*
- **NSEP/NSEA** Awarded (**Top 1%**) Certificates in the National Standard Examinations in Physics & Astronomy *2023*
- **INAO** Among the **Top 44 in India** to qualify for **Orientation Cum Selection Camp in Astronomy** at HBCSE *2022*
- **KVPY SA 2022** Achieved **All India Rank 186** in the **KVPY Aptitude Test** by the Indian Institute of Science *2022*

EXTRACURRICULARS AND POSITIONS OF RESPONSIBILITY

- **Coordinator, DevClub IITD** The premier software development community at IIT Delhi *May 2025-Present*
- **Technical Coordinator, Physics and Astronomy Club IITD** *May 2025-Present*
- **2nd Runner Up** for the **Quizzing Cup** at the **Inter IIT Cultural Meet 7.0** at IIT Patna *2024*
- **2nd Runner Up, Mastermind**, the annual Mastermind styled Quiz Tournament by the Quizzing Club of IITD *2024*
- **Organised** several **Quiz Competitions** across the Delhi Circuit as the Quiz Master representing Quizzing Club IITD
- **Inter IIT Tech Meet:** Led IIT Delhi's Team for the Agentic AI Problem Statement at the 14th Inter IIT Tech Meet at IIT Patna; Previously represented IIT Delhi at the 13th Inter IIT Tech Meet at IIT Bombay *2024*