

ATISH KUMAR

Final Year | Electrical Engineering | IIT Jodhpur
+91-9508813493 | kumaratish7009@gmail.com | b22ee015@iitj.ac.in |  |  | 






Education

Indian Institute of Technology Jodhpur, India Bachelors of Technology in Electrical Engineering	Nov 2022 – May 2026 Current CGPA: 7.50/10
Gurukul Vidyapeeth, Hajipur Secondary & Higher Secondary Education	May 2014 – Apr 2022 HSC: 96.2% · SSC: 96.6%

Experience

Undergraduate Researcher IIT Jodhpur Mentor: Dr. Binod Kumar	May 2025 – Sep 2025
<ul style="list-style-type: none">Contributed to the GEMINI-HPCA2024 framework by redesigning interconnect topologies, transforming a standard 2D Mesh into a Concentrated Mesh to improve scalability, reduce hop count, and optimize communication efficiency.Executed the full simulation pipeline and benchmarking, validating correctness, analyzing performance trade-offs, and generating insights on placement and routing efficiency, latency reduction, and wirelength optimization.Leveraged Agile workflows, GitHub Actions, and version control to streamline development, while producing results aligned with conference-level research outcomes.	

Projects

Snazzy Shop Website React.js · Node.js · Express.js · MongoDB · Tailwind CSS · JWT	June – Aug 2025 Website  
<ul style="list-style-type: none">Engineered a comprehensive full-stack e-commerce platform featuring secure user authentication, product catalog management, dynamic shopping cart functionality, and order processing workflows.Designed, documented, and deployed RESTful APIs, seamlessly integrating MongoDB with optimized schema design to enable scalable, persistent, and secure data storage, retrieval, and management.Developed a highly responsive React.js frontend styled with Tailwind CSS, ensuring seamless performance, accessibility, and user experience across multiple devices and screen sizes.	
Travel Tracker Node.js · Express.js · EJS · PostgreSQL	Jan – Feb 2025 
<ul style="list-style-type: none">Developed a full-stack travel diary web application, enabling users to log destinations, trip details, and experiences with structured data storage and dynamic, interactive dashboards.Designed and optimized PostgreSQL schemas, implemented backend logic with Node.js and Express.js including RESTful routes and error handling, and rendered responsive front-end views using EJS templates for a seamless user experience.	
Heart Stroke Predictor Python · Scikit-learn · Google Colab	Mar – May 2024 
<ul style="list-style-type: none">Built an end-to-end machine learning pipeline for stroke risk prediction, including data preprocessing, feature engineering, model training, hyperparameter tuning, and performance evaluation.Benchmarked multiple algorithms (ANN, Random Forest, KNN, Decision Tree, Naive Bayes) and conducted feature importance analysis to highlight key medical risk factors and improve interpretability.	
MIPS Compiler and Simulator Python · MIPS Assembly	Oct – Nov 2024 
<ul style="list-style-type: none">Developed a compiler and simulator supporting R, I, and J-type MIPS instructions with label resolution, instruction encoding, error handling, and a parser to translate assembly into binary machine code.Implemented a step-by-step execution engine with register and memory state tracking, enabling benchmarking with test programs and serving as an interactive tool for learning computer architecture.	

Achievements

- Secured **All India Rank in top 1.5%** among 160,000+ candidates in **JEE Advanced 2022**.
- Qualified **JEE Mains 2022** out of 10,00,000+ candidates.
- Solved **300+ Data Structures and Algorithms problems** across LeetCode, GFG, and other platforms.

Technical Skills and Relevant Coursework

- Languages:** Python, C/C++, JavaScript/TypeScript, SQL (MySQL, PostgreSQL), MongoDB
- Frameworks/Tools:** Node.js, Express.js, React.js, FastAPI, Docker, AWS, Git/GitHub, REST APIs
- AI/ML:** Scikit-learn, NumPy, Pandas, Matplotlib
- Coursework:** Data Structures and Algorithms, Pattern Recognition and ML, Artificial Intelligence, Computer Architecture, Probability & Statistics, Linear Algebra & Calculus, Signals and Systems, Digital Design

Positions of Responsibility & Extracurricular

- Served as **Assistant Head** for Ignus, the cultural fest of IIT Jodhpur, and Varchas, the sports fest of IIT Jodhpur.
- Represented IIT Jodhpur as a participant in the **Inter IIT Cultural Meet 6.0**, showcasing cultural and creative skills on a national platform.