



NAKUL

Bachelor of Technology
in Electrical Engineering
Indian Institute Of Technology, Ropar

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GitHub | Portfolio
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EDUCATION

Degree	Institute/Board	CGPA/Percentage	Year
Bachelor of Technology	Indian Institute of Technology, Ropar	6.72 (Till 4th Sem)	2022-2026
Senior Secondary	Board of School Education Harayana	10	2021
Secondary	Board of School Education Harayana	9.8	2019

EXPERIENCE

- Indian Institute of Technology** 2024 Summer Holidays
Intern Punjab
 - Engaged in the development and implementation of a wireless communication radar system using FPGA technology.
 - Worked with 4x2 RFSoc hardware to enhance system performance and capabilities.
 - Utilize VHDL (VHSIC Hardware Description Language) for programming and developing software components.
 - Collaborated with a team to design, test, and debug the radar system, ensuring high precision and efficiency.
 - gained hands-on experience with advanced FPGA and RFSoc technologies, contributing to cutting-edge research in wireless communication.

PROJECTS

- LORA communication shield for mobile phone** 2024
Tinkering Lab GE-107 Github
 - it involves developing a communication shield that enables Long Range (LoRa) communication capabilities for mobile phones. It extends the communication range of mobile devices using LoRa technology, facilitating long-distance data transmission.
- Span Email Prediction** 2024
Github
 - Developed a machine learning model to classify emails as spam or non-spam using logistic regression. This project involved extensive data preprocessing, feature selection, model training, and evaluation, culminating in a robust spam detection system.
 - Tools and Technologies Programming Language: Python Libraries: Scikit-learn, Pandas, Numpy, NLTK/Spacy
 - Achievements: Successfully developed a logistic regression model with high accuracy in spam detection.
- Movie Recommendation System** 2024
Github
 - Developed a movie recommendation system utilizing collaborative filtering techniques to provide personalized movie suggestions based on user behavior and preferences. This project focused on leveraging user-item interactions to predict movie ratings and enhance recommendation accuracy.
 - Tools and Technologies Programming Language: Python Libraries: Pandas, NumPy, Scikit-learn
 - Achievements: Successfully deployed a machine learning-driven movie recommendation system. Improved user engagement and satisfaction through personalized and accurate movie suggestions.
- Education Bank: Gateway to Educational Empowerment** 2024
HS202-Human-Geography-Societal-Needs Github
 - This platform offers access to various free resources, including prominent platforms such as MIT OpenCourseWare and Swayam portal. Additionally, it provides links to AI tools designed to enhance students' learning experience, thereby facilitating their academic endeavors.
 - This website serves as a valuable resource for engineering students by offering comprehensive study notes tailored to their academic needs.

TECHNICAL SKILLS

- Programming Languages:** C/C++, Basic Python, Numpy, Pandas, HTML, Verilog, undastable CSS
- Other:** Public Speaking, Machine Learning, Communication,Arduino

KEY COURSES TAKEN

- Electrical:** Signals ans Systems, Basic Electronics, Digital Circuit,Material Science For Electrical AND Electronics Engineers,Circuit Theory, Electromechanics
- Math:** Probability and Stochastic Processes, Differential Equations, Linear Algebra and Calculus

POSITIONS OF RESPONSIBILITY

- Leadership Role in PES Outreach Team,** 2024 - 2025
 - Session Coordination and Planning, Quality Assurance through Demo Sessions,Motivating and Mentoring Team Members, Promoting Outreach and Impact
- Event Management Team Member,** Aeromodulling Club, IIT Ropar Advitya 2022
 - to help team member for better organization of Event.

MISCELLANEOUS

- **Member of ATL’s MISSION**, ATL’s Labs in Roar schools, in partnership with Ropar MLA and PES, promote innovation and STEAM
- **Volunteer of the month**, Certified as the volunteer of the month, by Pehchaan Ek Safar, IIT Ropar *2023*