

# Jaideep Randhawa

Roll No.:2203463

B.Tech CSE

Guru Nanak Dev Engineering College, Ludhiana

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Github | Website

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## EDUCATION

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.Tech. (CSE)	Guru Nanak Dev Engineering College, Ludhiana	9.24	2022-Present
Senior Secondary	C.J.S. Public School, Jalandhar (CBSE Board)	95.4%	2022
Secondary	C.J.S. Public School, Jalandhar (CBSE Board)	94.8%	2020

## INTERNSHIPS

- Indian Institute of Technology** *Jun. 2025 - Jul. 2025*  
*RISE-UP Intern under Dr. Arun Kumar Verma* *Jammu*
  - Worked on "Design and Development of EV Chargers and role of AI ML in autonomous E-vehicles".
  - Explored applications of artificial intelligence and machine learning in electric and autonomous vehicle systems.
- Indian Institute of Information Technology** *Jun. 2024 - Aug. 2024*  
*Summer Research Intern under Dr. Muneendra Ojha* *Allahabad*
  - Worked on mission planning by a swarm of drones using Deep Reinforcement Learning.
  - Developed a decentralised pursuit-evasion simulation where mutiple evadors evade a single pursuer using Deep Reinforcement Learning.

## PROJECTS

- Real-time fault detection of LLC converter using machine learning (Accepted - UPCON 2025)** *Jul. 2025*  
*Focuses on the real-time fault detection of LLC resonant DC-DC converters using machine learning.*
  - **Tools & technologies used:** Machine Learning, Random Forest, Python, Scikit-learn, Decision tree
- Biogas Production Prediction using a Hybrid ML Model (Under Revision, IF-7.1)** *Mar. 2025*  
*Developed a Novel ML model( $R$ -square = 0.89) to predict biogas yield from varied feedstocks using real-world data.*
  - **Tools & technologies used:** Python, Scikit-learn, Gradient Boosting, Random Forest, Numpy, Pandas, Streamlit
- Threat Intelligence Reputation Checker Tool** *Feb. 2025*  
*Developed a threat-intelligence tool to automate IP reputation checks using AbuseIPDB API for SOC use cases.*
  - **Tools & technologies used:** Python, Requests (API), AbuseIPDB API

## KEY COURSES TAKEN

- Data Structure, Algorithms, DBMS, Machine Learning, Artificial Intelligence, Computer Networks, Theory of Computation, Operating Systems, Computer Architecture, Engineering Mathematics, Discrete Mathematics, Natural Language Processing, Cyber Security.

## TECHNICAL SKILLS

- **Programming:** C/C++, Python, SQL
- **Tools & OS:** Jupyter Notebook, Google Colab, MS Office, Windows, Linux, Github
- **Libraries/Frameworks:** pandas, numpy, scikit-learn, matplotlib, gym, pygame, tensorflow, LLMs

## POSITIONS OF RESPONSIBILITY

- **Convenor,** Data Science Club, GNDEC, Ludhiana *Present*
- **Student Coordinator,** Causmic Club, GNDEC, Ludhiana *Present*
- **Student Adviser,** Training and Placement Cell, GNDEC, Ludhiana *Present*
- **Radio Jockey,** 90.8 MHz FMCRS, GNDEC, Ludhiana *Present*

## ACHIEVEMENTS

- **Best Paper Award** in IETE Annual Convention, CSIR-CSIO, Chandigarh. *2025*  
*Comparative Analysis of Multi-Agent DRL Strategies for Autonomous UAV Swarm Operations in Defence*
- **Selected** in National level IDE Bootcamp organised by AICTE and MOE. *2025*
- **Secured 2nd Position** Git and Linux Workshop, Causmic Club, GNDEC, Ludhiana *2024*
- **Contributor** Selected as a contributor at Girlsript summer of code *2024*
- **Selected** as a part of SYCI at Khalis Foundation. *2024*

## CERTIFICATIONS

- NPTEL: Privacy and Security in Online Social Media
- NPTEL: Data Analytics using Python
- NPTEL: Industry 4.0 and IoT
- NPTEL: Responsible and Safe AI
- NPTEL: Introduction to Large Language Models (LLMs)
- NPTEL: Social Networks
- NPTEL: Organizational Behaviour
- Infosys Springboard: C Programming
- Infosys Springboard: Python Programming
- Infosys Springboard: Interactive Skills