

# Jatin Gehlot

Indian Institute of Technology Ropar

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github.com/JatinGehlott18



## EDUCATION

**Bachelor of Technology: 7.03 CGPA**

*Dept. of Mechanical Engineering, Indian Institute of Technology Ropar*

Punjab, India

Aug. 2018 – May 2022

**RBSE (class 12): 90.2%**

*Rajasthan Board of Secondary Education*

Rajasthan, India

Jun. 2015 – Mar. 2017

## TECHNICAL SKILLS

**Languages:** Python, C/C++, SQL, JavaScript, JQuery, Node.JS

**Softwares & Tools:** Google Colab, Jupyter Notebook, VS-Code, Ms-Office, Matlab

**Libraries:** Bootstrap, Express.js, EJS, Pandas, NumPy, MongoDB, PostgreSQL

## PROJECTS & WORK EXPERIENCE

**Faculty Information Management Portal** | Guided by Dr. Viswanath Gunturi

March 2021

- Developed a Full Stack Solution for Management of faculty information based on database system, that have individual login, password, Dashboard, specialized dashboard and can process leave application, project information management, hiring of Associates
- Used PostgreSQL for building backend Relational Database and MongoDB for Faculty Portal
- EXPOSURE: **SQL(Postgresql), Stored Procedures, Triggers, Node.js, EJS, MongoDB**

**Neural Network From scratch** | Guided by Dr. Manish Agarwal

Nov 2020

- Developed Sequential Neural network Model from scratch without using predefined libraries
- designed and used different activation functions like sigmoid, ReLu and Tanh
- Implemented concepts of back propagation using cost function for model fitting
- EXPOSURE: **Numpy, Pandas, Python**

**Graph Theory: Design and Implementation** | Guided by Dr. Puneet Goyal

Oct 2020

- Implemented BFS, Dijkstra's and Bellman Ford algorithm using adjacency list for weighted graphs
- Implemented Kahn's Algorithm to perform topological sort on Directed acyclic graphs, algorithm can also detect the graph cycles
- EXPOSURE: **C++, Data Structures and Algorithms**

**Optimized SUDOKU Solver** |

Feb 2021

- Developed and implemented Sudoku solver based on Backtracking algorithm, Constraint satisfaction propagation and Forward checking.
- Used domain restriction for each cell in Sudoku and applied Constraint satisfaction and successfully reduced computation by 80% for average case.
- EXPOSURE: **Python, Back-Tracking**

## RELEVANT COURSES

Introduction to Database System, Deep Learning for Physical System, Introduction to Data Structures and Algorithms, Probability and Statistics, Differential Equations, Linear Algebra and Transformations, Advanced Calculus

## EXTRACURRICULAR ACTIVITIES

Active sportsperson and Player of sports like Cricket, Table Tennis, Badminton, Basketball and Volleyball