**Abhishek Dubey** 

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GitHub Link: Link
LinkedIn: Link
Portfolio: Link

#### **ACADEMIC DETAILS**

B Tech (Mechanical Engineering)	2022-2026	MMMUT, Gorakhpur	6.13/10.0 (Ongoing)
Class XII (CBSE)	2021	Little Flower School, Gida, Gorakhpur	82.6%
Class X (CBSE)	2019	Little Flower School, Gida, Gorakhpur	89.66%

# **PROJECTS**

# Library Management System || Live || Code

Python, Django, MySQL

- Developed a library management system with features for book management, user registration, and transaction tracking.
- Implemented role-based access (Admin, Librarian, Member) and secure login functionality.
- Integrated MySQL for storing and managing book, user, and transaction data efficiently.
- Generated reports on book usage, overdue items, and member activity to support library operations...

# Numerical Methods Solver || Live || Code

C++, STL, Eigen Library, GNU Scientific Library (GSL)

- Implemented various numerical methods (Bisection, Newton-Raphson, Secant, Gauss-Seidel) to solve nonlinear and linear equations.
- Developed algorithms to solve first-order ordinary differential equations using Euler's and Runge-Kutta methods.
- Focused on numerical integration techniques like Simpson's Rule and the Trapezoidal Rule for accurate area calculations.
- Conducted error analysis and convergence checks to ensure the accuracy and reliability of solutions.
- Optimized the efficiency of iterative methods for better computational performance and faster results. Preprocessed and cleaned the dataset to handle missing values, outliers, and normalize features.

### **House Price Prediction** | Live | Code

Machine Learning, Python, Scikit-learn, Pandas, NumPy, Matplotlib, Seaborn, VS Code

- Developed a machine learning model to predict house prices based on features like location, size, and amenities.
- Preprocessed and cleaned the dataset to handle missing values, outliers, and normalize features.
- Implemented multiple regression algorithms (e.g., Linear Regression, Decision Trees) to compare and optimize prediction accuracy.
- Evaluated model performance using metrics like Mean Squared Error (MSE) and R-squared, improving prediction accuracy through hyperparameter tuning.

# **ACHIEVEMENTS**

Silver-Badge in CodeChef – Recognized for strong problem-solving skills and proficiency in competitive programming. Demonstrates my
ability to tackle complex algorithmic challenges efficiently.

# **SKILLS**

# **Technical**:

**Programming:** C/C++, Python, Django, Html, CSS, MySQL **Software & Tools:** Microsoft Office, AutoCAD Designing

<u>Curriculum</u>: Software Development, Backend Development, Machine Learning, Data Science, Data Analysis, and Engineering Design & Simulation (AutoCAD, Structural Integrity, Product Lifecycle Management).

**Certificates:** Joining Technologies for Metals | IIT Roorkee(NPTEL).

#### **Interests:**

- Software Development, Backend Development, Machine Learning, Data Science, Data Analysis, Web Development.
- Database Management, Automation, AI & Predictive Modeling, System Optimization, Engineering Design & Simulation, CAD Modeling.
- Structural Integrity, Product Lifecycle Management, and Smart Technologies. Mechanical Design, Simulation, Manufacturing Processes.

## POSITION OF RESPONSIBILITY

Project Leader, Library Management System – Led a team in designing and developing a Library Management System. Oversaw database design, user interface development, and feature implementation to streamline book management and user transactions.

# **EXTRACURRICULAR**

- Legal Studies Enthusiast Studied intellectual property, contract law, and technology regulations to understand legal aspects of engineering and innovation.
- Cricket Enthusiast Actively follow and analyze cricket matches, player performances, and game strategies.