

Raman Singh

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EDUCATION

Netaji Subhas University of Technology — Dwarka, Delhi, India

Bachelor of Technology in Electrical Engineering (Minor in Machine Learning)

C.G.P.A: 8.7

PROJECTS

8-bit Computer | Logisim Evolution

- Designed and simulated an 8-bit CPU in Logisim Evolution with a custom instruction set and control unit.
- Implemented an ALU, registers, and memory modules, enabling basic arithmetic and logic operations.
- Developed a microprogrammed control unit to execute instructions, including load, store, and branching.

Gmail Clone | React.js, Node.js, MongoDB, Express.js, Tailwind CSS

- Developed a Gmail clone with email composition, inbox management, and real-time updates.
- Implemented JWT-based authentication and database storage for secure email handling.
- Integrated email sending and receiving functionality using SMTP protocols.

Expense Tracker | React.js, Node.js, MongoDB, Express.js

- Developed a full-featured expense tracker to log, categorize, and visualize daily expenses.
- Integrated real-time charts and analytics to track spending patterns and financial insights.
- Designed an intuitive UI with responsive design using React.js, HTML, CSS, and JavaScript.

Housing Prices Prediction | Python, Scikit-learn, Pandas, Matplotlib

- Built a machine learning model to predict housing prices based on various features like location, area, and amenities.
- Collected and preprocessed real estate datasets, handling missing values and performing feature engineering.
- Implemented and compared multiple ML algorithms (Linear Regression, Decision Trees, Random Forest, XGBoost) to optimize accuracy.

TECHNICAL SKILLS

- **Languages:** Python, C/C++, SQL, JavaScript, HTML/CSS, R, MATLAB
- **Frameworks:** React.js, Node.js, Express.js
- **Dev Tools:** Git, GitHub, VS Code, Visual Studio, Jupyter Notebook, Logisim Evolution
- **Libraries:** Pandas, NumPy, Matplotlib, Seaborn, scikit-learn
- **Embedded & Simulation Tools:** MATLAB, Simulink, LTSpice

ACHIEVEMENTS & CONTRIBUTIONS

- **Solved 500+ DSA problems** on LeetCode.
- Maintains **GitHub repositories** on Web Development, MATLAB projects, and Machine Learning.
- **Created a Simulink model** to analyze an Electrical Vehicle performance.