Khelan Mehta

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Professional Summary

Third-year B.Tech ECE student specializing in building energy modeling, simulation, and green building certification. LEED Green Associate and LEED AP BD+C with hands-on experience in eQuest and IES VE. Combining strong programming skills with sustainability knowledge to support energy workflows and building performance analysis.

Experience

Energy Modeling & Sustainability Consultant Intern **July 2024 – Present**
Ergo Energy LLP *Surat, Gujarat*

- Conducted building energy modeling and simulation for commercial projects using eQuest and IES VE
- Supported LEED certification processes (BD+C, O+M) through preparation of energy documentation and baseline energy models
- Developed Python automation workflows for processing simulation outputs and generating structured reports
- Participated in building energy audits and assisted in preparing energy conservation measures and technical recommendations

Development Team Manager **June 2023 – May 2024**
The IT Company — Brown Ion *Remote*

- Coordinated a development team delivering web applications and internal management software using agile methodologies
- Led development of AI-assisted automation tools to support internal operational workflows
- Ensured adherence to OWASP security standards and architected full-stack solutions using the MERN stack

Web Developer **August 2021 – June 2023**
Admyre *Remote*

- Developed and maintained a full-stack influencer marketing platform using React, Node.js, and Express
- Built data visualization dashboards for influencer performance and campaign tracking
- Integrated third-party APIs for social media data collection and performance monitoring

Projects

AI-Powered eQuest Report Analysis System | *Python, Flask, OpenAI, Vector Search* **2024**

- Designed a document processing system for extracting structured data from eQuest energy simulation reports
- Implemented a retrieval-augmented generation (RAG) architecture using vector embeddings for semantic document search
- Developed an NLP-based query interface for analyzing building energy performance and HVAC load outputs
- Automated report generation with PDF export functionality to support energy analysis workflows
- Explored machine learning approaches for benchmarking building energy performance against standards

Certifications

LEED AP Building Design + Construction (BD+C) — U.S. Green Building Council — Dec 2025
LEED Green Associate — U.S. Green Building Council — Aug 2025
LEED V4 BD+C Exam Prep — Udemy - Hans Weemaes — Oct 2025
ESG Performance Measurement — Alison — Sep 2025
Life Cycle Assessment (LCA) Beginner — Ecochain — Sep 2025
CSRD Fundamentals Level 1 — CSRD Institute — Sep 2025

Technical Skills

Energy Modeling: eQuest, IES VE, EnergyPlus, Building Performance Analysis, Load Calculations, ASHRAE 90.1
Green Building: LEED BD+C, LEED O+M, Energy Code Compliance, Building Commissioning, WELL Building Standard
AI/ML: Machine Learning, Deep Learning, Neural Networks, NLP, RAG Systems, Vector Databases
Programming: Python, JavaScript, Node.js, TensorFlow, PyTorch, Pandas, NumPy, Flask, FastAPI
Web Development: MERN Stack (MongoDB, Express, React, Node.js), Firebase, RESTful APIs
Data Analysis: Energy Data Analytics, Statistical Analysis, Data Visualization, Report Automation
Sustainability: ESG Metrics, Life Cycle Assessment (LCA), Carbon Footprint Analysis, CSRD Reporting
Languages: English (Professional Proficiency), Hindi (Native), Gujarati (Native)

Education

Nirma University **Ahmedabad, Gujarat**
Bachelor of Technology in Electronics and Communication Engineering — CGPA: 8.12/10 *2022 – Present*

- Relevant Coursework: Data Structures, Machine Learning

Essar International School **Surat, Gujarat**
Higher Secondary Education (CBSE) *2020 – 2022*

- JEE Main Qualification