

MD SUFI HUSSAIN

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📁 [portfolio](#)

EDUCATION

IDD B.Tech & M.Tech | Bioengineering (Minor in CSE) | IIT, Mandi

📅 Graduation: 05/2025

CGPA: 7.83

Relevant Courses - Data Science, DSA, Operating Systems, Database Management, OOPS, Machine Learning.

EXPERIENCE

Decision Analytics Associate | ZS

📅 05/2025 - Ongoing

📍 Gurgaon, Haryana

- Analyze country, site, trial-level data from Citeline, DQS IR, CTMS to recommend optimal site selections.
- Deliver feasibility reports and actionable insights that improve trial planning efficiency and reduce costs.
- Evaluate patient enrollment potential and site capacity to improve global clinical trial planning efficiency.

Quant Analyst Intern | Futures First

📅 06/2023 - 08/2023

📍 Gurgaon, Haryana

- Built various mathematical models to forecast long-term future interest rates with up to 80% accuracy.
- Executed programs for backtesting quantitative strategies using historical data and economic surveys.
- Analyzed 20 years of economic surveys and monetary policy to assess their impact on the financial markets.

Software Trainee Intern | Cognitree

📅 03/2025 - 05/2025

📍 Remote

- Implemented multitenancy support using diverse strategies, including isolated and separate tenant schemas.
- Conducted comprehensive API testing and validation using Postman with secure web authentication protocols.
- Developed CLI tools using Typer, incorporating modular FastAPI architecture with sync and async frameworks.

PROJECTS

Automated Vaccine Development Framework (Flask, JavaScript) [Github Website](#)

- Streamlined vaccine development processes by integrating 20+ tools and analyses into a unified platform.
- Automated data extraction through web scraping and BS4, cutting processing time from 150+ days to hours.

AI-Driven Epitope-Linker Tool (Python, Django, Ajax, JavaScript) [Github Website](#)

- Created a custom linkage software that leverages instability index algorithms to optimize vaccine constructs.
- Innovated a recursive approach to generate constructs and applied pruning to improve efficiency by 90%.

Custom Antigen Prediction Software (Machine Learning, Python) [Github Website](#)

- Applied Z-descriptor mapping and ACC transform to capture variable protein features into a 125 * N grid.
- Trained and validated the model using bacterial and viral datasets, achieving 90% accuracy with LOO-CV.

E-Commerce Auctions Website (Python, Django, JavaScript, SQL) [Github Website](#)

- Designed and developed an attire bidding auction website utilizing Django, Python, JavaScript, and SQL.
- Streamlined end-to-end functionalities of the code to significantly reduce technical glitches by up to 90%.

TECHNICAL SKILLS

- **Web Development:** Python, Django, CSS, Redis, Docker, FastAPI, Flask, JavaScript, React, HTML, Tailwind.
- **Frameworks:** Celery, Docker, Rest API, SQL, AWS, GitHub, Database Management, GraphQL, Jupyter.
- **Analytics:** MS Excel, Power BI, Tableau, Data Science, Machine Learning, AI, CNN, R, Pyspark, Tensorflow.

AWARDS & ACHIEVEMENTS

- Awarded **1st Prize** at IIT Mandi for developing an innovative social cause based product.
- Qualified JEE Mains & Advanced; secured 90% in 10th and 87% in 12th (ICSE Board).
- Coding Platforms - [Codeforces](#) | [InterviewBit](#) | [LeetCode](#) | [Coding-Ninjas](#) | [GeeksforGeeks](#)