

SAURABH KUMAR JHA

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Education

Indian Institute of Information Technology(IIIT), Jabalpur

India

Bachelor of Technology (B.Tech.)

Nov 2020 – Jun 2024

Relevant Coursework

- Machine Learning
- Data Analytics with Python
- Data Base Management System
- Fundamentals Of Robotics
- Data Structures and Algorithms
- IOT
- Python
- PRML
- TinyML

Internships & Work experience

Pratikshat Solutions LLP

Aug 2024 – Present

Data Analyst Intern

- Analyzed and processed **large sensor datasets** to identify patterns, supporting decision-making as a **team leader** on a **DOS(Railway)** project. Worked hands-on with **Databrick**.
- Built dashboards for **clients** and contributed to election data analysis and live result streaming.
- Technologies Used: Python, Advanced Excel, Power BI, SQL, Databases, and Databricks

Projects

Detecting Defects in Ultrasonic Welding | *Numpy, TensorFlow, Flask, HTML, CSS* | [Link](#)

Aug 2023 - Nov 2023

- Developed a **self-made** image dataset utilizing acrylic sheets, conducted cutting and welding processes, and employed **image processing** techniques. Constructed a deep learning model based on 2D convolutional **neural networks** to detect defects in **ultrasonic welding** parts.
- Achieved **98%** accuracy on the testing dataset.

Emotion Detection from Speech | *TensorFlow, TensorFlow-Lite* | [Link](#)

Apr 2024 - Jun 2024

- Designed and implemented an emotion detection system using an **LSTM** model on the **Arduino Nano 33 BLE Sense** board, achieving **96.37%** accuracy.
- Collected speech data from Kaggle and optimized the model with **Post-training Quantization**, reducing its size by **91.65%**.

Arduino to ROS WebSocket Data Streaming & RViz Visualization | [Link](#)

Nov 2023 - Dec 2023

- Connected Arduino to ROS Python node via WebSocket for real-time data streaming.
- Visualized real-time sensor data in RViz using dynamic ROS markers.

Recommendation Engine | *Pandas, Sklearn, HTML, CSS, JavaScript, Flask* | [Link](#)

Oct 2022 - Apr 2023

- Built a recommendation system using **collaborative filtering** to suggest personalized book recommendations based on **user ratings**.
- Added features like user login and database integration for a seamless user experience.

Skills

Languages: C++(Data Structures and Algorithms), Python, **SQL**, HTML, CSS, JavaScript, Shell Scripting, OOPs

Technologies/Frameworks: Ensemble Tech., Flask, Django, Web Development, **ROS**, SolidWorks, **Statistics**

Developer Tools: VS Code, Jupyter notebook, **Adv.Excel**, Power-BI, Postman, **Docker**, **AWS**, GitHub, Git, **ETL**

Data Science: LangChain, **Machine Learning**, deep learning, visualisation, NLP, WebSocket, Computer vision

OS: Windows, **Linux**(Ubuntu)

Database: MySQL, SQLite

Soft Skills: Quick learner, Problem-solving, Teamwork, Leadership

Achievements & Voluntary Work

- Team Leader:** BTP Project - Voice-Based Health Monitoring (Laryngeal Cancer)
- Developed 15+ ML models, each solving unique and complex problems.**
- 5-star in SQL** on HackerRank
- Solve 650+ problem on different coding platforms: CodeChef, HackerRank, GeeksforGeeks, LeetCode
- Jagrati (An initiative by IIITians):** Student Volunteer