Rishav Raj Prasad

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EDUCATION

Birla Institute of Technology, Mesra   *Ranchi, Jharkhand*
Bachelor of Technology   **2021 – 2025**
Major in Computer Science Engineering
Cumulative GPA: 8.51 (out of 10)
Relevant Coursework: Data Structure and Algorithms, Database Management System, Software Engineering

WORK EXPERIENCE/ INTERNSHIP

Project & Machine Learning Intern   **May 2024 – Aug 2024**
Jharkhand Space Application Centre   Ranchi, Jharkhand

- Analysed a dataset of **over 10 million records** to forecast water flow with **67% accuracy using Python and ARIMA models**.
- Reduced **data processing time by 30%** through efficient data cleaning and handling of missing data, ensuring high data integrity.
- **Developed** and **deployed** an AI-powered forecasting model using Python and Flask, predicting future water flow trends with a 67% accuracy rate.
- **Improved** water resource management decision-making by 40% through precise and actionable insights derived from advanced AI analytics.
- Utilized GitHub for version control, optimizing collaboration and reducing project completion time by 10%. Followed the Scrum Methodology for development.

PROJECTS

FileFlow – A File Sharing WebApp (Landing Page)

- Engineered scalable RESTful APIs with Node.js and Express.js, **cutting file processing time by 50%.**
- Leveraged MongoDB for efficient storage**, enabling 60% faster retrieval of user information and file metadata**.
  Tech Stack: Front end - React.js, HTML, CSS, JavaScript | Back end - Node.js, Express.js, MongoDB

Real-Time Location Tracker (Preview)

- Developed server-side logic using Node.js and Express to efficiently manage over 100 concurrent connections.
- Integrated Socket.io for real-time, bidirectional communication between clients and server, achieving updates with latency under 200ms.
- Utilized Leaflet CDN for dynamic and interactive map rendering, accurately displaying over 1,000 location points.
  Tech Stack: Node.js, Express, Socket.io, Leaflet CDN

Leaf Disease Detection (Preview) (Team Project)

- Used the **LeNet CNN architecture** to classify plant diseases, achieving **80% validation accuracy**.
- Performed image rescaling and normalization, ensuring uniform **input size of 225x225 pixels** for better model training.
- Trained on the Plant Disease Recognition dataset for **15 epochs** to achieve strong accuracy
  Tech Stack: Python, Keras, TensorFlow, sklearn, Kaggle, Google Colab

Driver Drowsiness Detector (GitHub)

- Made a real-time Driver Drowsiness Detection system using YOLOv5 for object detection and tracking.
- Trained a custom dataset created using LabelImg for detecting drowsiness-related behavior, such as eye closure and yawning with 76% Accuracy.
- Implemented a computer vision pipeline for accurate detection and upto 80% precision, ensuring safety in driving environments.
  Tech Stack: Python, YOLOv5, LabelImg

SKILLS

Technical Skills:

- **Programming Languages:** Java, JavaScript, Python
- **Front end technologies:** HTML, CSS, React.Js, ShadCN
- **Server-side technologies:** Java, Node.js,
- **Database Management:** DBMS, MongoDB, MySQL
- **IDEs:** Visual Studio Code, JetBrains IDE
- **Data Visualisation:** Tableau
- **Version Control:** Git, GitHub
- **Familiar with:** Azure Cloud

Professional Skills:

- Strong Communication, analytical, interpersonal & problem-solving skills, Agile Methodology