YADUBIR JHA

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Technical Skills

Languages and DataBases: Python, Java, JavaScript, Mongodb, MySQL, Reactjs, Nodejs
Tools: AWS EC2, S3, Elastic beanstalk, postman, Github, Numpy, Panda, Google Cloud run, Github
Other Skills: Machine learning, API Integration, Natural Language Processing

Experience/Projects

PreciseBake – AI-Powered Ingredient Conversion Tool   **March '25 – April '25**
Built a full-stack application that uses the Google Gemini API to convert volume-based recipe measurements into precise gram values using a curated ingredient density database.

- **Integrated Google Gemini API Flash 2.0** to intelligently process natural language measurements and generate precise conversions and full recipes.
- Designed and implemented a backend with Express.js to handle real-time conversion logic using a custom ingredient density dataset with more than 300 ingredients.
  Developed a full-stack AI-powered tool using React.js and Node.js to convert ambiguous ingredient measurements (e.g., "1 cup of flour") into accurate weights in grams.

Human Activity Recognition using LSTM-based Deep Learning   **Feb '25 – April '25**
Built a time series classification model using LSTM networks to recognize human activities (walking, sitting, standing, etc.) from smartphone sensor data, leveraging accelerometer and gyroscope readings.

- Developed an **LSTM-based deep learning model** for multi-class classification of human activities using time-series data from smartphone sensors.
- Preprocessed 3D accelerometer and gyroscope data by applying noise filters and segmenting it into fixed-length windows for model training.
- Achieved high classification accuracy across six activity classes by optimizing model architecture and hyperparameters.
- Analyzed and visualized sensor signal patterns to extract meaningful insights and validate temporal dependencies.

CocoCode - A coding platform   **Dec '24 – Jan '25**
Developed an online coding platform, CocoCode, using the MERN stack, enabling users to practice coding, submit problems, and track progress, improving engagement for programming learners

- **Implemented** user authentication with JWT and email verification, **enhancing security and user account management**, leading to a **seamless onboarding process**.
- **Integrated** Judge0 API for real-time code execution and problem submissions, **allowing users to test and evaluate code efficiently**, improving platform usability.
- **Designed** a structured backend with role-based access control and middleware functions, **ensuring scalable and secure API interactions** for user and problem management.
- **Optimized** frontend performance using React.js and context management, **resulting in a smooth UI/UX experience** for coding and problem-solving.

Awards & Achievements

Certifications: AWS Certified Cloud Practitioner,

AWS Academy Graduate - AWS Academy Cloud Foundations, Supervised Machine Learning: Regression and Classification

Achievements: Industry Conclave '24 Finalists

Education

Vellore Institute of Technology, Bhopal   **2022 – 2026(expected)**
Bachelor of Technology in CSE specialised in Cloud computing || CGPA (7.99)   *Bhopal, Madhya Pradesh*
Position of responsibility : Stats-O-Locked Club (Finance core team member)
Relevant coursework : Computer Networks, Database Management and Systems, Object oriented programming