

JAY BHUVA

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EDUCATION

B.Tech in Information Technology, Dharmsinh Desai University

Nadiad, Gujarat

CPI : 8.8

2021 - 2025

TECHNICAL SKILLS

Programming Languages : JavaScript, Java, C++ , Python

Databases : MySQL, PostgreSQL, MongoDB, Convex

Technologies/Frameworks : React.js, Flask, Node.js, SpringBoot, Hibernate, AJAX, Next.js

Developer Tools : Git, Postman

WORK EXPERIENCE

Research Intern | Hydrology Department

Space Application Centre-ISRO, Ahmedabad, Gujarat

December 2024 – March 2025

- Built end-to-end **Python** pipelines for river discharge estimation using **satellite-derived data**, applying a **modified Manning's equation** to automate hydrological computations.
- Processed and visualized large-scale geospatial and time-series datasets (**shapefiles**, **NetCDF**, **CSV**) using **Pandas**, **NumPy**, **xarray**, **Matplotlib**, and **geopandas**.
- Applied statistical methods including **RMSE** and **KGE** to validate outputs against in-situ data, contributing to data-driven decision making.
- Automated data matching and reach-wise correlation using **Python scripting**, focusing on reproducibility and efficiency.

PROJECTS-PUBLICATION

InterviewEdge: AI-based Interview Assistant ([IEEE Research Paper](#))

- Technologies used: **React.js**, **Flask**, **Python**, **LangChain**, **RAG**, **LLaMA Model**, **ChromaDB**
- Co-developed an AI-powered interview assistant to **analyze spoken technical responses** (Java, C++ , C) and **provide automated feedback** on accuracy, completeness, and clarity.
- Engineered back-end infrastructure to support model inference and integrated **Retrieval-Augmented Generation (RAG)** using **LLaMA 3.2-3B-Instruct**, improving consistency of the evaluation and reducing bias.
- Optimized recruitment assessment processes, improving candidate readiness evaluation accuracy by **76.71**. ([GitHub](#))

BillBuddies – AI-Powered Expense Management System

- Technologies used: **Next.js**, **React.js**, **Convex**, **Gemini (GoogleAI)**
- Built a full-stack real-time expense manager to dynamically **split individual and group expenses** (equal, percentage, or custom) with debt minimization logic.
- Integrated **Gemini AI** to generate personalized insights and monthly expense summaries; automated reminders via **Inngest** and **Resend**. ([Live Demo](#))

TeamTrack – Effortless Employee Management

- Technologies used: **Java Spring Boot**, **React.js**, **MySQL**, **Tailwind CSS**
- Built a **full-stack employee management system** enabling seamless creation, editing, and deletion of employee profiles for company administrators using **React.js**, **Spring Boot**, and **MySQL**.
- Designed a **modern and responsive UI** using **Tailwind CSS**, ensuring a **intuitive user experience** for easy management of employees. ([GitHub](#))

CERTIFICATIONS

- AWS Academy Graduate - AWS Academy Cloud Foundations [View Badge](#)
- AWS Academy Graduate - AWS Academy Machine Learning Foundations [View Badge](#)
- Stanford University and DeepLearning.AI - Supervised Machine Learning [View Certificate](#)
- Stanford University and DeepLearning.AI - Advanced Learning Algorithms [View Certificate](#)