Aryan Yadav

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TECHNICAL SKILLS

Programming: Java, C, Python

Libraries & Tools: Spring Boot, Git, AWS, Docker, Azure, GCP, QGIS

Databases: MySQL, MongoDB

PROJECTS

AI-powered Wildlife Corridor

Machine Learning Project *Java, Python*

. Developed a model to identify potential wildlife corridors for Elephants and Tigers in the Terai Arc Landscape.

- Utilized Remote Sensing (RS) and Geographic Information System (GIS) datasets. Applied Machine Learning (Linear Regression) for habitat suitability modeling. Employed Complex Network Theory to assess habitat connectivity.
- ISRO-IIRS satellite data was used for habitat suitability modeling and corridor design.
- Designed peripheral region detection by calculating mean pixel intensity variations and applying thresholding techniques to highlight significant regions, marking them with distinct colors for visualization.
- The project aims to promote ecological sustainability and minimize human-wildlife conflicts through data-driven insights for conservation planning.

Birth Position Identification Program

Developed a Java-based application to identify the type of train berth based on seat number. *Java*

. Implemented logic to classify berth types (lower, middle, upper, side lower, side upper) based on user input.
. Utilized modular code structure with a function (berth_type) to handle berth classification.
. Incorporated user input handling using Scanner for real-time seat number entry and validation.
. Designed efficient conditional statements to determine berth type based on seat number modulo logic.

E-commerce Website

Full Stack Web Development Project *React, Node.js, Express, MongoDB*

- Designed and created a 100% browser- and device-compatible responsive e-commerce platform. Retention of mobile users increased by 25%.
- Using React hooks and context API, I implemented product listing pages with sophisticated sorting, filtering, and search functionalities. 10% fewer bounces and a 15% increase in user engagement.
- Enhanced front-end performance through the use of code splitting, lazy loading, and contemporary CSS approaches. a thirty percent decrease in load time.
- Set up RESTful API endpoints for order processing, user authentication, and product administration that can handle up to 1000 requests per minute on average during peak hours.

EDUCATION

University of Petroleum and Energy Studies, Dehradun, Uttarakhand — Aug 2022 – May 2026
B.Tech in Computer Science, Cloud Computing and Virtualization Technology — *CGPA: 7.7*

City Montessori School, Lucknow, Uttar Pradesh — April 2021–July 2022
Class 12th, ISC — *Percentage: 94%*

ACHIEVEMENTS

- AWS Academy Introduction to Cloud Semester 1 & 2 (AWS Academy)
- Aspire ARC'24 (Aspire Circle)

ACCOMPLISHMENT AND RECOGNITION

Ambassador at Dean of Student Welfare (DSW), UPES, Dehradun — Dec 2022 – Present
Summer Intern — Jun 2023 – Jul 2023
Shree Dev Charitable Trust – Internship — Hybrid