



 anushkaa-ambuj  
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## EDUCATION

Indian Institute of Technology,  
Jodhpur | **B.Tech in ES**  
 May 2025  
CGPA: 7.71/10

Narayana Junior College  
**Class 12 | TSBIIE**  Jun 2021  
Percentage: 98 %

Vikas The Concept School  
**Class 10 | CBSE**  May 2019  
Percentage: 94.8 %

## SKILLS

### LANGUAGES

- C/C++ - Python - Java - SQL - Bash

### DEVELOPMENT

- HTML/CSS - JavaScript - TypeScript - Angular18 - Bootstrap - Django - Flask - MySQL - MongoDB

### ML-DL

- Numpy - Pandas - Matplotlib - Seaborn - Scikit-learn - OpenCV - PyTorch - TensorFlow

### SOFTWARE TOOLS

- Git - GitHub - VS Code - Kaggle - Google Collab - Anaconda3 - Tableau - Selenium - Kerberos - Docker - Kubernetes - Linux

## COURSES

- DSA • DBMS • OS • PRML • DL
- Computer Vision • Cyber Security
- Computer Networks • Biosensors
- Embedded Systems and IoT • DV
- Virtualization & Cloud Computing
- Probability, Statistics & Stochastic Processes

## ACHIEVEMENTS

- Solved 200+ DSA problems on **LeetCode** & **CodeChef** enhancing algorithmic thinking.

## POR

### Department Secretary - BDS, IITJ

 Oct 2023 - Oct 2024

- Spearheaded new cultures such as 'Portfolio Prism' and 'PeerSphere', oversaw logistical and budgetary planning for department events.
- Acted as a liaison between faculty, administration, and students, ensuring smooth communication and addressing student concerns effectively.
- Led a team of six executives to organize exhibitions, competitions, outreach programs, and develop a new website, enhancing department visibility and participation.

# ANUSHKAA AMBUJ

**B.TECH, ENGINEERING SCIENCE IN COMPUTER SCIENCE & ELECTRICAL ENGINEERING, IIT JODHPUR**

## EXPERIENCE

### SDE Internship, Johnson Controls

 Jun 2024 - Aug 2024

 Hyderabad, Telangana, India

- Developed an end-to-end system using LLM to enable natural language queries on an RDBMS database, converting plain English user questions into SQL queries and executing them to fetch records from the DB.
- Implemented Few-Shot Learning to boost model performance and developed a dynamic web interface using Angular 18, integrated with a robust backend powered by Django REST API for seamless user interaction.
- **Skills:** • NLP • LLM • Transformers • Semantic Parsing • Few-Shot Learning • Prompt Engineering • Transfer Learning • Angular18 • Django • Google Gemini Pro • Kerberos


### Data Science Internship, Capgemini

 Dec 2022

- Implemented ARIMA, XGBoost & LSTM models to predict grocery store sales using historical data including dates, store and item information, promotions, and sales, improving prediction accuracy by 28.9% and reducing RMSLE from 0.45 to 0.32.
- Optimized inventory management by forecasting product demand, reducing food waste, and enhancing customer satisfaction by achieving a 15% reduction in overstocking and a 10% decrease in stockouts.
- Gained hands-on experience with ML techniques including classification, regression, and time series forecasting. Built and implemented various models, enhancing skills in data pre-processing, feature engineering, and model evaluation. Developed practical insights into real-world data handling and decision-making.

## PROJECTS

### REMify: Intelligent Sleep Stage Monitoring System

 Aug - Nov 2024


- Developed an IoT-ML system to monitor sleep stages non-invasively using physiological signals like heart rate and motion data.
- Designed and implemented a pipeline for real-time sleep stage classification and visualization, integrating data collection from Raspberry Pi Pico W with biosensors and storing data & results in MongoDB via a Flask-based REST API.
- **Skills:** • IoT • ML • Python • Scikit-Learn • Numpy • Pandas • Matplotlib • MongoDB • Flask

### Knowledge Distillation of Chest X-Ray Images, IIT Jodhpur

 Jun - Dec 2023

- Built a computationally lightweight system for analyzing Chest X-Ray images using Knowledge Distillation on the NIH Dataset.
- Implemented and tested Hierarchical Knowledge Distillation models with RESNET-101, RESNET-18, and MobileNetV2 architectures on the CIFAR-10 dataset, achieving a 10% boost in student model accuracy.
- Experimented with HKD models using DENSENET-121, RESNET-34, and MobileNetV2 on FashionMNIST and Pneumonia datasets, resulting in a 15% improvement in model efficiency.
- **Skills:** • PyTorch • Scikit-Learn • Numpy • Pandas • Matplotlib • OpenCV • Knowledge Distillation

### Smart Home Systems Database Design and Visualization

 Sep 2023-Oct 2023

- Planned and developed a robust database system for Smart Home Systems, focusing on efficient data management and user experience.
- Integrated MongoDB for scalability and real-time processing, paired with Tableau for seamless data visualization and dashboard creation.
- Outlined and applied best practices for MongoDB schema design and data access pattern optimization, enhancing system performance.
- **Skills:** • Python • SQL • MongoDB • Tableau