Poojan Patel

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EDUCATION

IIT JODHPUR
B.Tech in Electrical Engineering
Currently in 3rd year
Current CGPA – 8.35 / 10
Aug 2023 – Present | Jodhpur, Rajasthan, India

UTKARSH HIGHER SECONDARY SCHOOL
Class 12 | GSEB Board | 98.88 PERCENTILE
Mar 2021 – Mar 2023 | Gujarat, India

LINKS

Github:// **poojanpatelalpesh**
LinkedIn:// **Poojan Patel**
Leetcode:// **Solved 200+ problems**

COURSEWORK

UNDERGRADUATE
Advanced Machine Learning
Data Structure Algorithms
Probability Statistics
Linear Algebra
Digital Design
Computer Architecture

TECHNICAL SKILLS

PROGRAMMING
Python, C++, JavaScript

WEB DEVELOPMENT
React.js, HTML, CSS, JavaScript

BACKEND DEVELOPMENT
Node.js, Express, Mongoose

DATABASE MANAGEMENT
MongoDB, Neo4j, MySQL, ChromaDB

TOOLS & TECHNOLOGIES
Docker, Git, Bitbucket, GitHub, Google Colab, VS Code, Figma

CO-CURRICULAR

OVERALL COORDINATOR
The Product Club IITJ

EXPERIENCE

INFOXORAS – SOFTWARE DEVELOPER INTERN

- Worked on backend development using **Node.js** and **Express.js**, resolving **15+ critical bugs** that improved system stability and reduced downtime by **30%**.
- Designed and implemented efficient **data models** in **MongoDB**, optimizing query performance and reducing response time by **25%**.
- Ensured clean, maintainable, and scalable code practices, enabling seamless feature integration and boosting developer productivity by **20%**.
- Applied strong **SDE problem-solving skills** to design **scalable APIs** and optimize algorithms, improving throughput by **20%** in high-traffic scenarios.

PROJECTS

SMOLLOCAL – SME COMMERCE PLATFORM
| Full-Stack Developer

- Developed a full-stack web platform enabling small businesses to manage products, loyal customers, and re-engage via **Twilio based messaging platform**.
- Architected a **multi-tenant backend** using **Node.js**, **Express.js**, **MongoDB**, and **JWT authentication** to ensure secure and isolated seller access.
- Integrated **Cloudinary** for media storage; built a real-time customer analytics dashboard with **Chart.js** and **MongoDB Aggregation Framework**.

DENSETEX – | Research Project

- Led a 4-person independent research team to develop **DenseTeX**, a 125M parameter Image-to-LaTeX model, integrating a **DenseNet-169 CNN encoder** with a **GPT-2 decoder** to transcribe complex mathematical expressions.
- Implemented the first-of-its-kind **2D Positional Encoding** in an Image-to-LaTeX model, enhancing spatial awareness and improving overall performance.
- Leveraged high-performance computing resources by training on **4×A6000 GPUs for ~20 hours** on a dataset of 1M samples, achieving a **BLEU score of 0.80** and **validation loss of 0.45**.

ACHIEVEMENTS

- Secured **AIR 3360 in JEE Mains 2023** (top 0.3% of 1M+ candidates).
- Achieved **AIR 7863 in JEE Advanced 2023**, admitted to IIT Jodhpur (EE).
- Awarded **A– (9/10) grade** in **Advanced Machine Learning** and **Probability & Statistics**.