Parv Pareek

Education

Marwadi University, Gujarat

2022 - 2026

Bachelor of Computer Engineering, CGPA: 9.22

Vapi Public School, India

2006 - 2021

ISC (Class XII), 80%

Experience

Research Intern, IIT Indore

May 2024 - September 2024

Under Dr. Chandresh Maurya

Indore, India

- Worked on speech models and large language models (LLMs) to classify Alzheimer's disease patients based on speech.
- Reviewed and implemented **research papers**, applying novel techniques to real-world speech processing problems.
- Gained in-depth expertise in applying deep learning solutions to complex speech-related challenges.

Projects

Fraud Transaction Detection System — Scikit-learn, Pandas, XGBoost (GitHub) (Live Demo)

- Developed a robust **ETL pipeline** in Python (pandas) for transaction data cleansing, transformation, and feature engineering, enabling streamlined pre-processing.
- Conducted **EDA** and data visualizations to surface key patterns and perform feature engineering.
- Trained and fine-tuned an **XGBoost classifier** (with grid search **hyperparameter tuning**), identified the most influential features, and deployed a real-time demo via **Streamlit**.

Multitask BERT (SimCSE Framework) — PyTorch, NumPy (GitHub)

- Fine-tuned BERT using contrastive learning (SimCSE) on three downstream tasks: sentence similarity (SemEval STS Benchmark), paraphrase detection (Quora), and sentiment analysis (SST).
- Achieved strong performance: 93% accuracy on STS, 88% on Quora paraphrase detection, and 94% on SST sentiment classification.
- Built **end-to-end** PyTorch pipelines for data loading, model training, and evaluation, optimizing for cross-task generalization.

Code Class DSA Tracking Platform — React, Node.js, TypeScript, Express.js (Link)

- Developed a full-stack DSA learning platform for 100+ students using **React**, **Node.js**, **and TypeScript** to streamline assignment tracking and access to practice problems.
- Built a dedicated **analytics dashboard** to visualize student progress and submission patterns.
- Designed and implemented a scalable REST API with Express.js and Prisma ORM, managing all data.

Technical Skills

Machine Learning: PyTorch, HuggingFace, W&B, scikit-learn, NLTK, NumPy, Pandas

Web Technologies: Express, React, PostgreSQL

Cloud Technologies: AWS, Docker Languages: Python, C++, TypeScript

Achievements

- Second Prize Winner at an AI + Blockchain hackathon for building autonomous communication agents.
- Academic Excellence: Achieved 9.45 SPI in 4th semester.
- Runner Up in Scavenger Hunt and Tech Battle coding challenges at MU Fest '23 and '24.
- Organized and hosted a **tech meetup** of **150+** developers as a Tech Team member of DeCodeCafe community.

Certifications

AWS Academy Graduate - AWS Academy Cloud Foundations

Nov 2024

Advanced Learning Algorithms by DeepLearning.ai

Credential ID: FPPE6H2CPDME