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SOHAM PARIKH

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Soham Parikh

SUMMARY

With a specialized proficiency in web/app development and comprehensive design expertise, coupled with a robust foundation in both ML and DL, I am poised to make a meaningful contribution to the Development team. My in-depth research experience in Machine Learning further equips me to significantly enhance research initiatives and advance organizational objectives. I am enthusiastic about leveraging my multifaceted skills and expertise to drive innovation and excellence within the Development team.

SKILLS

Languages: •Python •C++ •Move(Familiar) •JS(Familiar)

Development—

App: •Flutter •Firebase •Dart

Web: •HTML •CSS •TS & JS(Familiar) •Bootstrap •React (Familiar)

Technologies: • PyTorch (Familiar)• MongoDB • MySQL • Git and Tools • Linux • Google Collab • Jupyter Notebooks • Android Studio • Canva • Figma • LaTeX

EDUCATION

12/2021 - Present **Indian Institute of Technology, Jodhpur** — **CGPA: 7.67 (till 5th Sem)**
B.Tech in Computer Science and Engineering

7/2020 - 7/2021 **Puna International School** — **81%**
Class XII

3/2018 - 3/2019 **Shree Swaminarayan International School** — **95.6%**
Class X

SDE PROJECTS

OnChainRadio

• Aptos Move
• React
• TypeScript

- Under the mentorship of **Dr.Debashish Das** spearheaded the development of a **decentralized music streaming platform**, for InterIIT Tech Meet 12.0.
- Engineered backend infrastructure for secure music storage, user authentication, permissionless uploads by artist and community-driven governance, and also implemented user-friendly features for liking songs, creating playlists, etc.
- Collaborated with frontend developers to create a visually appealing and user-friendly interface for seamless navigation and engagement.

MinkBench — **github link**

• Python
• Shell
• Tkinter

- Under the mentorship of **Dr.Palash Das** designed and developed a **Linux application for accessing computer performance** .
- Designed and integrated real-time monitoring of computer system statistics and benchmark functionalities allowing users to assess and analyze the system's performance in an attractive and user-friendly UI.

PHC Management System — **github link**

• EJS
• MongoDB

- Under the mentorship of **Dr. Suchetna Chakraborty** designed and developed a comprehensive **campus-wide medical system** enabling students to access medical history, and review billing history effortlessly.
- Streamlined healthcare processes by providing doctors, nurses, and receptionists and pharmacists with efficient tools for adding diagnoses and billings and ensuring seamless patient management, all within a user-friendly interface.

S-Mart App — **github link**

• Flutter
• Firebase
• Dart

- Under the mentorship of **Dr. Kshitij Gajjar** designed and developed a **Supermarket Delivery App** , catering to the needs of a local supermarket.
- Implemented user-friendly features that enable customers to effortlessly place orders from the supermarket for convenient delivery to their preferred location.

Tic-Tac-Toe WebApp — **github link**

• HTML
• CSS
• JS

- Designed and developed a fun **Tic Tac Toe game** using HTML, CSS and JS which allowed users to simultaneously play with each other.

ML PROJECTS

Information Fusion of CT Images

• DL - CNN, VAE
• Python
• PyTorch

- Under the guidance of **Dr.Angshuman Paul** conducted information fusion on CT Images from the DeepLesion dataset provided by NIH.
- Developed a comprehensive approach to integrate multiple modalities and extract meaningful features from the CT Images by utilizing various techniques such as CNN, SSL, VAE and 3DCE to fuse the available data.
- Variational Autoencoders (VAEs) played a crucial role in generating recreated images with a remarkably low Mean Squared Error (MSE) of less than 0.01.

Twitter Hate Speech Detection

github link

• ML
• NLP
• Python

- Utilized various NLP tools and methodologies including BoW, TF-IDF, Word2Vec, and BERT for feature extraction and classification.
- Implemented advanced techniques to address the class imbalance issue
- Achieved an impressive accuracy of 96.5, with an F1 score of 0.65 for the minority class.

Credit Card Fraud Detection

github link

• Classification Models
• SMOTE
• Python

- Employed various ML concepts such as PCA and sampling to create a robust credit card fraud detection system.
- Performed experimental analysis using models such as Random Forest and XGBoost etc. to better understand their workings on skewed dataset.
- Utilized sampling techniques such as SMOTE to handle the highly imbalanced nature of the data and ensure accurate detection of fraudulent transactions.
- Achieved an impressive AUPRC of 0.86, indicating the effectiveness of the implemented solution.

POSITIONS OF RESPONSIBILITY

8/2022-7/2023 **Student Guide** — **Student Wellbeing Committee, IIT Jodhpur**
Mentored 10 freshers about the campus and guided them.

8/2022-7/2023 **Assistant Head, Media and Publicity** — **Entrepreneurship Cell, IIT Jodhpur**
Created attractive and informative posters etc.

8/2022-7/2023 **Assistant Head, Design and Creativity** — **Aaftab '22, IIT Jodhpur**
Created attractive and informative posters etc. for the literary fest of IIT Jodhpur

ACHIEVEMENTS

- Achieved A- Grade in Pattern Recognition and Machine Learning course under **Dr. Richa Singh**.
- Achieved A- Grade in Database Management Systems course under **Dr. Suchetna Chakraborty**.
- Achieved A- Grade in Operating Systems course under **Dr. Palash Das**.
- Achieved A- Grade in Computer Architecture course under **Dr. Dip Sankar Benerjee**.
- Stood **1st** in 12-hr Web Development Hackathon in Prometeo'23, IITJ (The techno - entrepreneurical fest of IITJ).
- **pupil** Max 1230 rating on Codeforces.
- **2* Coder** Max 1446 rating on CodeChef.

EXTRA- CURRICULAR ACTIVITIES

Contingent Member — **Inter IIT TechMeet 12.0**
Member of the MidPrep PS by Aptos

Tech Volunteer — **Prometeo'22, IITJ**
Volunteered various tech-related activities

Junior Executive — **E-Cell, IITJ**
Worked in the design team

LANGUAGES

English - B2+, **Hindi** - Native , **Gujarati** - Native