

Dip Patel

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SUMMARY :

AI/ML Developer focused on building and deploying end-to-end predictive models using Python. Delivers solutions to users by driving React/Next.js web and mobile application development.

TECHNICAL SKILLS:

- **AI/ Machine Learning** : Python, scikit-learn, Pandas, Predictive Modeling, Data Visualization, Automation, AI/ML
- **Web / Full-Stack**: React JS, Next JS, .Net Core, JavaScript, Mobile Development
- **Programming Languages**: Python, JAVA, C/C++, C#
- **Database / Tools**: SQL, Git, MongoDB, cloudinary, Firebase

EXPERIENCE :

Machine Learning Intern - BrainyBeam Technologies Pvt Ltd | March 2024 to June 2024

- Engineered & deployed end-to-end Heart Disease Prediction model application, optimizing user access to predictive tools.
- Conducted extensive EDA & feature selection using Pandas and scikit-learn to refine predictive model accuracy.
- Collaborated to integrate innovative ML models, streamlining key data processing pipelines and workflows.

Machine Learning Intern - Technook | Nov 2023 to Jan 2024

- Engineered specialized Sentiment Analysis model, improving classification accuracy by 5% via iterative optimization.
- Prototyped & deployed a UI for the Sentiment Analysis model, enabling end users to interact with real time predictions.
- Created internal data visualization tools to simplify the analysis of complex numerical data and model performance metrics.

Artificial Intelligence Intern - Technook | Jul 2023 to Sep 2023

- Designed & developed AI models, including an Image Recognition prototype, supporting advanced predictive analytics.
- Applied iterative data analysis and statistical algorithms, successfully improving predictive accuracy by an estimated 10%.
- Engineered internal data visualization scripts (Matplotlib/Seaborn) for real time model output interpretation.
- Streamlined survey data collection and pre-processing methods, significantly improving subsequent AI model reliability.

Mobile App Developer Intern - BrainyBeam Technologies Pvt Ltd | May 2023 to Jun 2023

- Developed a feature-rich mobile shopping application, prioritizing a superior user-friendly experience and modern UI design.
- Engineered a foundational recommendation system (trending/personalized suggestions) based on user interaction data.
- Implemented data persistence using SQLite on the backend for efficient local storage and retrieval of user data.

PROJECTS :

Predict Cardiovascular Risk in Diabetes Patient

- Engineered a comprehensive, end to end predictive application to assess short-term vs. long-term cardiovascular risk in diabetic patients, addressing key research gaps.
- Integrated Model Explainability (LIME) to identify feature contributions for high-risk predictions, delivering actionable and transparent insights to the user.
- Developed a multi model architecture allowing users to select predictions from seven different machine learning models.
- Implemented a full analysis reporting feature for users to download comprehensive predictive results and personalized risk-mitigation suggestions.

Prompt Management Application

- Engineered a full, end to end web application using Next.js for user-generated prompt management, supporting sharing, saving, and CRUD functionality.
- Developed a real time trending section using database analytics to showcase popular prompts, significantly improving content discoverability and user engagement.
- Implemented secure user authentication and personalized profiles to allow users to manage their saved and created prompts effectively.

Invoice Management System

- Engineered a full, end to end application using React JS for invoice creation, management, and tracking, significantly streamlining administrative workflows.
- Designed and implemented a Dashboard featuring auto-generated graphical monthly analysis, providing users with instant, data-driven insights into billing trends.
- Developed user authentication and secure data persistence to manage varying invoice statuses and user-specific records.

Chat application

- Built an end to end real time chat application using Next.js, featuring secure one-on-one and group chat functionality.
- Integrated WebSockets (Firebase) for instant message delivery, handling concurrent users efficiently.
- Developed robust user authentication and state management to ensure a seamless and secure user experience across the platform.

Heart Disease prediction using ML

- Developed an end to end predictive application for Heart Disease, leveraging Python and scikit-learn to deliver a complete user experience.
- Performed full Exploratory Data Analysis (EDA) and data preprocessing to ensure a high quality dataset, minimizing noise and bias.
- Applied advanced techniques, including Ensemble Learning and rigorous Hyperparameter Tuning, to achieve high model accuracy for predictions.

Product price comparison tool using React

- Engineered a comprehensive price comparison tool using React that allows users to upload product images for analysis via the Google Lens API.
- Integrated multiple retail APIs (e.g., Amazon, Flipkart) to fetch similar product listings and pricing data in real time.

EDUCATION :

Madhuben and Bhanubhai Institute of Technology , Gujarat | Bachelor's Degree in Information Technology | 2020 to 2024

Parul University ,Gujarat | Master's Degree in Information Technology | 2024 to Expected 2026