SARTH PATEL

Champaign, Illinois | +91 9757478957 | sarthp870@gmail.com | Portfolio | linkedin.com/in/sarth-patel-s1411

EDUCATION

University of Illinois Urbana Champaign, Champaign, US   **Jun 2026**
Master of Science in Information Systems
Courses: Database Design and Prototyping, Data Warehousing and Business Intelligence, Data, Models and Information

Dwarkadas Jivanlal Sanghvi College of Engineering, India   **Jun 2024**
Bachleors of Technology in Computer Engineering
Courses: Advance Database Management Systems, Software Engineering, Operating Systems, Computer Networks

SKILLS SUMMARY

- **Programming Languages**:   Python, C, C++, Java, HTML, CSS, JavaScript
- **Software/Databases**:   MySQL, Postgres, MongoDB, Azure
- **Tools:**   Power BI, Tableau, Alteryx, Github, Pytest, Postman
- **Frameworks**:   Django, DjangoREST Framework, Flask, React JS, NodeJS, Tensorflow, Keras, Pytorch

PROFESSIONAL EXPERIENCE

Django Developer| Webomatic Softech Private Limited |*India*   **Jun 2022 – Oct 2022**
- Oversaw an existing codebase of over 5,000 lines source code and built new features for the backend in Django like product management, categorization and pricing enhancing functionality and maintainability.
- Wrote complex SQL queries to transform and load diverse source file data into the Teradata database.
- Developed reliable and efficient APIs for product management, Razorpay integration, and Item stock status using Django REST Framework and Firebase.
- Conducted comprehensive testing for over 100 APIs using Postman, meticulously documenting backend workflow design, resulting in a 25% reduction in response time and improved system efficiency.
- Collaborated with frontend developers to integrate user-facing elements with server-side logic, ensuring backend features worked seamlessly and maintaining the integration between React and Django.

PROJECTS

EcoWind: Smart Energy Forecasting and Optimization for Wind Farms | *Mumbai, India*   **Jun 2023 – May 2024**
- Developed a robust machine learning framework with PyTorch and Amazon SageMaker, achieving over 95% accuracy in predicting optimal yaw angles for turbines under various wind conditions.
- Increased overall wind farm power output by an average of 7.4% through yaw angle adjustments, with some configurations showing improvements of up to 13%.
- Utilized SCADA system data to execute real-time control adjustments within seconds, ensuring turbines operated at near-optimal efficiency and enhancing system responsiveness.

NLP Model for Detecting Duplicate Quora Question Pairs | *Mumbai, India*   **Apr 2024 – May 2024**
- Developed a machine learning model to detect duplicate questions on Quora using Natural Language Processing (NLP) techniques, achieving an 84% accuracy rate on a dataset of 40,000 question pairs.
- Used Feature Engineering to create various features, such as word count ratios, stop word count ratios, and common token counts, which enhanced model performance by 20%.
- Extracted fuzzy matching features using the fuzzywuzzy library, contributing to a 10% increase in feature robustness.
- Implemented machine learning models using XGBoost, reducing training time by 30% and achieving high accuracy in detecting duplicate questions.

Heart Diseases Classification Using Machine Learning| *Mumbai, India*   **May 2023 – Jun 2023**
- Developed a machine learning model to predict heart diseases with 1768 records with health metrics like age, BMI, and blood pressure. Cleaned data and addressed 5% missing values and outliers.
- Trained a model using machine learning techniques, such as random forests, decision trees and logistic regression, to properly predict heart diseases and achieved 85% accuracy with random forest.
- Used metrics such as accuracy (85%), precision (82%) performed 10-fold cross-validation. Identified top 5 significant features for better model interpretability.

CERTIFICATIONS

Complete Machine Learning & Data Science Bootcamp 2023
Building Web Applications in Django