SHUBH PATEL

shubhvivekpatel@gmail.com | Saint Louis| (463) 248-6041 | LinkedIn

EDUCATION

Saint Louis University MO, U.S
Master of Science, Artificial Intelligence Aug 2023 – May 2025
GPA: 3.8
Coursework: Data Analytics, Deep Learning, Statistics, Machine Learning **(Teaching Assistant, Research Assistant)**.

Gujarat University INDIA
Bachelor of Science, Artificial Intelligence and Machine Learning May 2020 – May 2023
GPA:3.9
Coursework: Statistical Analysis, Mathematics, Natural Language Processing, Big Data Technologies.

WORK EXPERIENCE

Saint Louis University **MO, U.S**
Research Assistant / Teaching Assistant *Sept 2023 - Present*
- Created and deployed a machine learning algorithm to predict temporal inflection points, reducing analysis time by 30% and improving predictive accuracy by 25% through optimized data pipelines using SQL and Tableau.
- Optimized feature selection and pre-processing workflows, leveraging real-time business data to enhance model precision and **boost** point efficiency by 20%.
- Spearheaded the integration of machine learning insights into decision-making processes, identifying temporal inflection points to enhance predictive accuracy by 25% and streamline analytical workflows by 40%.

Tatvic Analytics **India**
Data Scientist *Jan 2022– Aug 2023*
- Conducted exploratory data analysis (EDA) on Google Analytics data using Python, R, Pandas, and NumPy, identifying 15 actionable insights that **optimized** client strategies and **drove** a 12% increase in conversion rates.
- Developed and optimized a machine learning model with 96% accuracy to predict user engagement, using ensemble methods like Random Forest and Gradient Boosting to increase user interactions by 20% and significantly boost Customer Lifetime Value (CLV).
- Engineered web scraping pipelines to aggregate and analyze user behavior, **identifying** key patterns and **optimizing** engagement strategies that increased user interaction by 25% and enhanced gross margin on client websites.
- Collaborated cross-functionally using Looker Studio, Python, and R Studio to streamline data visualization workflows, accelerating decision-making by 30% through efficient report generation.

PROJECTS

Warfarin Dosing Analysis Using Machine and Deep Learning **Jan 2024 | Saint Louis University**
- Led the development of a dosing prediction model that enhanced accuracy by 88%, aligning closely with state-of-the-art pharmacogenetic models and enhancing patient safety through data-driven dosing recommendations.
- Implemented diverse algorithms, including linear regression, logistic regression, and neural networks, achieving 88% prediction accuracy, comparable to leading models in precision dosing research.
- Engineered feature selection and data transformation pipelines, enhancing model reliability by 25%, surpassing baseline methodologies in dataset pre-processing efficiency.

3D Object Reconstruction from 5 2D Images **Nov 2024 | Saint Louis University**
- Developed a 3D object reconstruction pipeline using the Nerf and R2CNN architectures to predict 3D voxel grids from 5 different 2D images, achieving high-quality reconstructions comparable to state-of-the-art methods.
- Executed voxel normalization techniques, image normalization, and background removal strategies to enhance model performance, improving reconstruction accuracy by 20% and reducing noise in 3D predictions.
- Boosted model training with batch processing and data augmentation techniques, resulting in a 15% reduction in training time and improving model stability during reconstruction tasks.

Factory Pulse: Machine Health Monitoring System **May 2024 | Saint Louis University**
- Integrated and visualized sensor data using React JS (frontend) and Spring Boot (backend), resulting in a 50% reduction in data retrieval time, and enhancing real-time monitoring of machine health.
- Developed an intuitive user interface using Python, SQL, HTML, CSS, and Bootstrap; refined user engagement metrics by 40% through targeted design adjustments based on direct customer feedback and usage patterns.
- Designed and deployed tools for machine performance visualization, uncovering anomalies and trends that optimized maintenance, reduced downtime by 25%, and improved resource use.

SKILLS

Skills: Data Mining, Decision Trees, Forecasting, Regression, Data Interpretation, Probability, Logistic Regression, Time Series.
Competencies: insight generation, cross-functional collaboration, communication, creative ideation, presentation skills, teamwork.
Tools/Frameworks: Python, R, SAS, SQL, TensorFlow, PyTorch, scikit-learn, AWS, Azure, GCP, Hadoop, Spark, Excel, Word, Powepoint.

CERTIFICATION

AWS AI Practitioner (FOUNDATIONAL)
AWS Machine Learning Engineer (ASSOCIATE)