

MAAHI PATEL

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EDUCATION

Rice University <i>M.S in Computer Science (Data Science and Machine Learning)</i>	<i>Aug 2025 – Dec 2026</i> <i>Houston, TX, USA</i>
Pandit Deendayal Energy University (PDEU) <i>B.Tech in Computer Science and Engineering, GPA: 3.8 / 4.0</i>	<i>Sept 2021 - May 2025</i> <i>Gandhinagar, GJ, India</i>

EXPERIENCE

Rice University Teaching Assistant, COMP 410: Software Engineering Methodology	<i>Houston, TX, USA</i> <i>Aug 2025 - Present</i>
<ul style="list-style-type: none">Mentored 15+ students for two project teams, providing continuous feedback and guidance on agile methodologies to improve project quality and team performance by 20%.Streamlined grading and feedback using standardized rubrics to improve student outcomes.Managed project documentation and progress tracking through Microsoft SharePoint, enabling centralized collaboration, version control, and transparent milestone evaluation across student teams.	
Pandit Deendayal Energy University (SAC ISRO Collaboration) <i>Research Intern</i>	<i>Gandhinagar, GJ, India</i> <i>Dec 2024 - Jun 2025</i>
<ul style="list-style-type: none">Engineered a LLaMA 3.2-based system for bug detection and code optimization, which led to a 92% accuracy in detecting bugs and boosted precision by 20% within testing environments.Built a Flask-based interface and CI/CD pipeline with Docker and GitHub Actions, enabling seamless deployment and real-time analysis of diverse codebases for research validation.Conducted comprehensive model benchmarking using large-scale datasets such as CodeNet and Defects4J, and optimized hyperparameters with PyTorch to enhance inference efficiency.	
NeoGen InfoTech <i>Data Science Intern</i>	<i>Ahmedabad, GJ, India</i> <i>May 2024 - Jul 2024</i>
<ul style="list-style-type: none">Developed customer churn prediction module using Random Forest and Logistic Regression, achieving a test AUC of 0.82.Enhanced data preprocessing and feature engineering pipelines, reducing runtime by 35% and improving model interpretability through SHAP-based feature importance analysis.	
Siddhi InfoSoft <i>Data Analytics Intern</i>	<i>Ahmedabad, GJ, India</i> <i>May 2023 - Aug 2023</i>
<ul style="list-style-type: none">Developed a real-time analytics dashboard using React.js and MongoDB to track revenue and order data, reducing manual reporting time by 30%.Leveraged advanced data visualization techniques in Power BI and Python (Matplotlib, Seaborn) to analyze sales patterns and operational bottlenecks, enabling targeted optimizations in workforce scheduling and inventory management.Collaborated with the backend team to design optimized MongoDB queries and indexing strategies, improving data retrieval speed by 25% and enhancing dashboard responsiveness.	

PROJECTS

Intrusion Detection System for Academic Institutions	<i>Aug 2024 - Nov 2024</i>
<ul style="list-style-type: none">Designed and trained a Random Forest-based IDS achieving 91% detection accuracy for simulated cyberattacks.Enabled automated cloud-based alerts that cut manual monitoring time by 50%, improving system responsiveness and reducing operator workload.	
Automated Video Captioning and Translation System	<i>Jan 2024 - May 2024</i>
<ul style="list-style-type: none">Created a multilingual video captioning and translation system with 98.4% accuracy using Flask, MoviePy, OpenCV, and Whisper.Improved pipeline to reduce processing time for 60+ minute videos by 40% without accuracy loss.	

TECHNICAL SKILLS

Programming Languages:	Python, Java, C, C++, JavaScript, R
Libraries & Frameworks:	Pandas, NumPy, Scikit-learn, PyTorch, TensorFlow, Hugging Face, XGBoost
Databases:	SQL (PostgreSQL, MySQL, MS SQL Server), MongoDB
Tools & Platforms:	AWS, Google Cloud Platform (GCP), Azure, Git, GitHub, GitHub Actions, Docker, REST API
Software Development:	OOP, SOLID Principles, Design Patterns, System Design, Multi-threading