

# MAAHI PATEL

maahip1304@gmail.com • linkedin.com/in/maahi-patel-779470245

## EDUCATION

---

**Rice University**  
Master of Computer Science

*Houston, TX, USA*  
*Expected 2027*

**Pandit Deendayal Energy University (PDEU),**  
B.Tech Computer Science and Engineering, CGPA: 9.28/10

*Gandhinagar, GJ, India*  
*May 2025*

## WORK EXPERIENCE

---

**Rice University — Teaching Assistant, COMP 410: Software Engineering Methodology**

*Aug 2025 - Present*

- Guided two project teams, comprised of **15+ students**, through the software development lifecycle, **improving project delivery quality by 20%** through agile methodologies.
- Streamlined grading and feedback using standardized rubrics to improve student outcomes.

**Pandit Deendayal Energy University (SAC ISRO Collaboration) — Research Intern**

*Dec 2024 - Jun 2025*

- 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.

**NeoGen InfoTech — Data Science Intern**

*May 2024 - Jul 2024*

- Developed customer churn prediction module using **Random Forest and Logistic Regression**, achieving a test **AUC of 0.82**.
- Built an interactive churn-risk dashboard using **Pandas, Scikit-learn, and Plotly Dash**.

**Siddhi InfoSoft — Data Analytics Intern**

*May 2023 - Aug 2023*

- Developed a real-time analytics dashboard using **React.js** and **MongoDB** to track revenue and order data, **reducing manual reporting time by 30%**.
- Leveraged **data visualization techniques** to diagnose sales trends and operational inefficiencies, **driving targeted optimizations** in staff scheduling and inventory control.

## PROJECTS

---

**Intrusion Detection System for Academic Institutions**

*Aug 2024 - Nov 2024*

- 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**

*Jan 2024 - May 2024*

- Created a multilingual video captioning and translation system with **98.4% accuracy** using **Flask, MoviePy, OpenCV, and Whisper**.
- Optimized pipeline to reduce processing time for **60+ minute videos by 40%** without accuracy loss.

## TECHNICAL SKILLS

---

**Languages:** Python, Java, C++, C

**Libraries & Frameworks:** PyTorch, TensorFlow, Scikit-learn, Keras, Node.js, React.js, Express.js, OpenCV, Whisper

**Databases:** SQL, MySQL, PostgreSQL, MongoDB

**Tools/Platforms:** Git, GitHub, GitHub Actions, Docker, REST API, Ollama