

# NARESH VEMULA

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## SUMMARY

Graduate Computer Science student with a focus on Machine Learning, Full Stack Development, and AI-driven solutions. Skilled in Python, React.js, and AI/ML frameworks, with hands-on experience in Large Language Models (LLMs), Generative AI, and building scalable systems. Eager to apply AI expertise to drive innovative business solutions and contribute to cutting-edge projects.

## EDUCATION

<b>Master of Science in Computer Science</b>	Expected Dec 2025
Texas A&M University - Corpus Christi, Corpus Christi, TX	3.7/4.0 GPA
<b>Bachelor of Technology in Computer Science</b>	Aug 2023
Mahatma Gandhi Institute of Technology, Hyderabad, India	3.1/4.0 GPA

## TECHNICAL SKILLS

**Languages:** Python, JavaScript, C  
**Web Development:** HTML, CSS, TailwindCSS, React.js, FastAPI, REST API, Figma  
**Machine Learning/AI:** NumPy, Pandas, TensorFlow, Scikit-learn, Matplotlib  
**Tools:** Git, Linux, Postman, Jupyter, Docker

## TECHNICAL PROJECTS

<b>Empath AI: Emotion-Sensitive Support Bot with Human Assistance</b>	Sept 2024 – Dec 2024
Developed an AI-powered chatbot that detects and responds to user emotions in real time	

- Engineered an NLP-driven chatbot using TextBlob for sentiment analysis and integrated Google LearnLM 1.5 Pro Experimental, achieving 90% accuracy in emotion detection.
- Built a full-stack solution with React.js and FastAPI, reducing response latency by 25% through optimized API calls and efficient state management.
- Implemented a WebSocket-based real-time support system, enabling seamless transitions between AI and human agents, increasing user engagement by 20%.

<b>UniLink: Distributed Social Networking Platform</b>	Jun 2024 – Jul 2024
Designed a scalable social networking platform with real-time data consistency	

- Developed a communication platform to enhance collaboration among college students, enabling users to create, update, and delete posts, and interact with shared content.
- Implemented a scalable backend using FastAPI, integrated Redis for caching, and used Cassandra for database management, ensuring fault tolerance and performance.
- Utilized Kafka for real-time message brokering, addressing challenges such as database denormalization and optimizing resource usage with Docker.

<b>Personal Portfolio Website   (<a href="#">Visit Portfolio</a>)</b>	Mar 2025
Modern portfolio with optimized performance	

- Developed with **React.js**, **Next.js**, and **Framer Motion** for smooth animations and interactions.
- Achieved **95+ Lighthouse score** with lazy loading and implementing responsive design with **Tailwind CSS**

<b>Customer Churn Prediction</b>	Jan 2024 – Apr 2024
Developed a machine learning model to predict customer churn	

- Developed a churn model using Logistic Regression and Random Forest, reaching 85% test accuracy.
- Performed data cleaning and transformation with Pandas to boost model performance.
- Visualized churn factors with Matplotlib and Seaborn to help stakeholders identify at-risk users.