Sree Vidya Cheekuri

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EDUCATION

Masters in Engineering Data Science at **University of Houston**	**GPA:** 4.0/4.0	**May 2026**
Bachelor of Technology in Computer Science at **SRM University**	**CGPA:** 8.72/10.0	**May 2024**

SKILLS

Programming: Python, SQL, R, Pandas, Matlab, NumPy, Scikit-Learn

Machine Learning & AI: TensorFlow, PyTorch, NLP, LLMs, Hugging Face, Transformer Models, Computer Vision

Developer Tools: AWS (S3, EC2), Docker, Git, Flask | Matplotlib, PowerBI, Tableau

Methods & Foundations: Time-Series Analysis, A/B Testing, Statistical Analysis

EXPERIENCE

Machine Learning Research Intern – University of Houston　　　　　　　　　　**Nov 2024 - Present**

- Engineered predictive ML models for concrete strength, corrosion, and leaching using domain-informed features, achieving up to 92% accuracy and 50% reduction in testing time
- Applied ensemble learning, kinetic modeling, and neural networks to support sustainable infrastructure research and improve model robustness across multiple material science projects

AI/ML Research Intern – Deakin University, Australia　　　　　　　　　　**Mar 2023 - Jul 2023**

- Developed a Tourism Demand Forecast Web Service using ARIMA and LSTM, achieving 85% prediction accuracy from 5+ years of historical data
- Designed a backend pipeline using Flask and **SQL** to handle real-time user queries and serve dynamic forecasts via a RESTful API

Full Stack Web Developer – Solar Secure Solutions　　　　　　　　　　**May 2022 - Jul 2022**

- Engineered and deployed interactive full-stack web modules using HTML, CSS, JavaScript, and Python; enhanced user navigation resulting in a 25% increase in user engagement across client-facing platforms

PUBLICATIONS

Pneumonia Detection using Machine Learning (IEEE)　　　　　　　　　　**Feb 2024 - May 2024**

- Designed a CNN-based diagnostic system to detect pneumonia from chest X-rays with high accuracy
- Trained and validated the model on labeled medical image datasets to ensure clinical relevance and robustness
- Published in IEEE 5th INCET 2024 conference. DOI: 10.1109/INCET61516.2024.10592975

PROJECTS

6D Pose Estimation for Robotic Grasping　　　　　　　　　　**Jun 2025 - Aug 2025**

- Architected an end-to-end vision system for robotic automation, enabling a model to identify and locate objects in 3D space with high precision (Validation MSE < 0.0002) for grasping tasks
- Implemented a production-ready MLOps workflow, leveraging a ResNet50 backbone in PyTorch to regress object rotation and translation from a single RGB image

Video Action Recognition | CNN-LSTM on UCF101 Dataset　　　　　　　　　　**Mar 2025 – May 2025**

- Built a deep learning model combining CNN and LSTM to recognize human actions across 101 categories from real-world video clips
- Processed and augmented video data by extracting 16-frame sequences, applying normalization, and encoding labels, achieving 88% accuracy in action classification

Generative Storytelling with AI | NLP + GANs for Animation　　　　　　　　　　**Mar 2024 - May 2024**

- Created multimodal AI system transforming text into animated videos using **LLMs** and **GANs**
- Achieved 95% scene-text alignment, enhancing storytelling precision and user engagement for educational apps

Assistive Technology for the Visually Impaired | Emotion-Aware Face Recognition　　　**Oct 2022 - Dec 2022**

- Developed a **MATLAB**-based system using Local Binary Points & Neural Networks to detect faces and recognize emotions with 93% accuracy
- Enabled real-time feedback through voice prompts, enhancing accessibility for blind users in daily interaction scenarios