Yasesvi Reddy Pebbeti

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Professional Summary

Master's student in Computer Science with hands-on experience in web development, data analysis, and AI research. Proficient in Python, Java, and C++; collaborative communicator with a track record of delivering user-centered solutions in academic and research settings.

Education

State University of New York Polytechnic Institute *Aug 2024 – May 2026*
Master of Science in Computer Science

Matrusri Engineering College, Osmania University *Nov 2020 – Jun 2024*
Bachelor of Engineering in Information Technology

Experience

SUNY Polytechnic Institute — College of Health Sciences *Sep 2024 – May 2025*
Graduate Assistant *Utica, NY*

- Updated and maintained research websites to ensure accurate content, smooth navigation, and consistent AWS-based deployments supporting faculty and student projects.
- Developed automated web-scraping tools in Python (BeautifulSoup) to collect and parse large-scale legislative, health, and climate datasets.
- Processed and cleaned structured data (CSV, JSON, HTML, TXT) with Pandas; built interactive visualizations (Matplotlib, Plotly, GeoPandas, Seaborn) to analyze AI legislation (2019–2024), COVID-19 trends, and climate discourse in the U.S. and Brazil.
- Partnered with faculty to streamline research workflows and ensure data/website accuracy, improving visibility and accessibility of project outcomes for academic and policy stakeholders.

Indian National Centre for Ocean Information Services (INCOIS) *May 2023 – Jun 2023*
Intern *Hyderabad, India*

- Analyzed sea surface temperature patterns across the Bay of Bengal, Arabian Sea, and Indian Ocean using remote sensing, image processing, QGIS, and Google Earth to support climate research initiatives.
- Applied Python-based statistical modeling and machine learning to extract insights from large-scale oceanographic datasets, improving research accuracy and efficiency.
- Optimized data analysis workflows by evaluating and integrating alternative tools and methodologies to streamline processing and interpretation.

Projects

Rotation Equivariance in CNN Using the D4 Group *May 2025 – Aug 2025*
Machine Learning, Deep Learning, e2cnn

- Implemented a D4-equivariant CNN for satellite image classification, achieving consistent accuracy across rotated inputs and outperforming a baseline CNN on the UC Merced Land Use dataset.

Brain Tumor Classification Using CNN & Grad-CAM *Jan 2025 – May 2025*
Machine Learning, CNN

- Built a VGG16-based transfer learning pipeline achieving $\tilde{9}6\%$ test accuracy; used Grad-CAM for model interpretability.

Plant Disease Identification & Pesticide Recommendation Using CNN *Nov 2023 – Jun 2024*
Machine Learning, CNN

- Led a 4-member team to develop a web-based AI system for automated plant disease diagnosis and pesticide recommendations; achieved $\tilde{9}2\%$ detection accuracy.

Content-Based Movie Recommendation System *Jul 2023 – Sep 2023*
Machine Learning

- Built a Python-based recommender leveraging genre and language metadata; improved recommendation accuracy by $\tilde{2}0\%$ on validation data.

Skills

Programming: Python, Java, C++
Data/ML: NumPy, Pandas, Matplotlib, Seaborn, Plotly, OpenCV, TensorFlow, PyTorch, BeautifulSoup
Web: HTML, CSS, JavaScript, React.js, Next.js
Tools: VS Code, GitHub, Jupyter Notebook, Google Colab, QGIS, Android Studio
Soft Skills: Project Management, Presentation, Documentation, Time Management, Teamwork, Adaptability

Publications

Plant Disease Identification and Pesticide Recommendation Using CNN *Jun 06, 2024*
International Journal of Innovative Research in Computer and Communication Engineering (IJIRCCE)

Paper Link

Leadership & Certificates

SUNY Poly Badminton Club *Jan 2025 – Present*
President

NYBPC Mohawk Valley *Apr 2025*
Volunteer

Matrusri Orators Club *Nov 2020 – Jul 2024*
President

Institution of Engineers (India), Dept. of IT *Nov 2020 – Jul 2024*
Head Student Coordinator

Certificates: Android Application Development; ARM Cortex-M3; Application Electronics & Robotics