Yasesvi Reddy Pebbeti

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Summary

Master's student in Computer Science at SUNY Polytechnic Institute, specializing in software engineering and full-stack development. Skilled in building scalable applications using React, Node.js, and Python, with experience deploying cloud-based systems and optimizing performance through data-driven solutions.

Education

SUNY Polytechnic Institute   Aug 2024 – May 2026
Master's of Science in Computer Science   Utica, NY

Osmania University   Nov 2020 – Jun 2024
Bachelor of Engineering in Information Technology   Hyderabad, India

Experience

Graduate Assistant — SUNY Polytechnic Institute   Sep 2024 – Present
College of Health Sciences & College of Engineering   Utica, NY

– **Guided by Dr. William "Amos" Confer (Sep 2025 – Present):** Support academic evaluation and grading workflows; compile nationwide Computer Science PhD program data to aid accreditation and external reviewer outreach.
– Assisted in preparing department-level evaluation reports and maintaining structured datasets for long-term academic review.
– **Guided by Dr. Nicolau DePaula (Sep 2024 – Aug 2025):** Automated climate-data analysis using Python and BeautifulSoup, integrating satellite and environmental datasets; built AWS-hosted dashboards and visualization tools improving research efficiency by 30% and maintaining 99% uptime.
– Contributed to research data curation and web maintenance tasks supporting ongoing climate and sustainability studies.

Web Development Intern — Code IT Consulting   Aug 2025 – Oct 2025
Next.js & JSON   Remote, United States

– Built multi-tenant SaaS platform (Next.js, Node.js, MongoDB) powering 60+ client websites.
– Implemented subdomain routing and CI/CD (GitHub Actions, PM2) achieving zero-downtime releases.
– Collaborated in Agile sprints improving release velocity by 20%.

Research Intern — Indian National Center for Ocean Information Services (INCOIS)   May 2023 – Jun 2023
Remote Sensing & Data Analysis   Hyderabad, India

– Processed oceanographic datasets (Python, QGIS) to support marine climate modeling.
– Applied ML-based statistical models accelerating analysis by 20%.

Projects

Multi-Tenant Conference Platform   Aug 2025 - Oct 2025
Next.js, Node.js, MongoDB, NGINX, VPS   [GitHub/Live]

– Engineered subdomain-based architecture with dynamic tenant JSON configs for 5+ live events.
– Deployed scalable build via PM2 & NGINX, achieving 99.9% uptime on Hostinger VPS.

Parallel Sorting Algorithms: Performance Profiling   Jan 2025 - May 2025
OpenMP, MPI, Pthreads, C, Linux   [GitHub/Live]

– Optimized sorting algorithms via multi-threading and memory profiling, reducing runtime by 45%.

Plant Disease Identification & Pesticide Recommendation   June 2024 - Dec 2024
Python, TensorFlow, CNN, OpenCV, Flask, Streamlit   [GitHub/Live]

– Developed a Convolutional Neural Network (CNN) to classify plant diseases with 97% accuracy using image datasets.
– Integrated a Flask-based backend and Streamlit interface to recommend optimal pesticides and display disease insights.

Technical Skills

Languages: Python, C++, JavaScript, Java
Frameworks: React, Node.js, Express, Django, Flask
Cloud & Tools: AWS, Docker, Git, PM2, Linux, CI/CD, NGINX
Databases: MongoDB, SQL

Publication

Yasesvi Reddy Pebbeti, et al. "Plant Disease Identification and Pesticide Recommendation Using CNN." *IJIRCCE*, Jun 2024. [Paper Link]