Yasesvi Reddy Pebbeti

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LinkedIn | GitHub | Website | Patent & Paper Publications

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

SUNY Polytechnic Institute - Graduate Assistant Sep 2024 – Present

- Evaluated and graded academic coursework, ensuring consistency and accuracy in assessment workflow.
- Performed climate data analysis using Python by integrating datasets to generate actionable insights.
- Developed and automated web scraping pipelines using BeautifulSoup to collect and structure large-scale research data.
- Managed and maintained research web pages and compiled nationwide Computer Science PhD program data to support research and academic initiatives.

Code IT Consulting - Intern Aug 2025 – Oct 2025

- Developed a multi-tenant web platform using Next.js, Node.js, and MongoDB to support 60+ client websites from a unified codebase.
- Implemented subdomain routing and managed CI/CD pipelines (GitHub Actions, PM2) to enable scalable deployments with zero downtime.
- Collaborated in Agile development cycles to streamline workflows and improve release efficiency by 20%.

Indian National Center for Ocean Information Services - Intern May 2023 – Jun 2023

- Processed and analyzed oceanographic and geospatial data using Python and QGIS to support marine and climate modeling.
- Applied statistical and machine learning techniques to optimize workflows, improving processing efficiency by 20%.
- Extracted insights from remote sensing data (GeoTIFF) and generated visualizations to support research and decision-making

Projects

Multi-Tenant Conference Platform Aug 2025 - Oct 2025 [GitHub/Live]

- Designed and implemented a scalable multi-tenant web platform using Next.js, Node.js, and MongoDB, enabling dynamic subdomain-based routing and tenant-specific content rendering.
- Deployed and managed production infrastructure using PM2 and NGINX, achieving 99.9% uptime with optimized build pipelines and efficient resource utilization.

Multi Model Early Disease Detection and Risk Classification Aug 2025 - Dec 2025 [GitHub/Live]

- Developed a unified machine learning pipeline to predict risk for Heart Disease, Diabetes, and COVID-19 ICU admission using multiple models.
- Implemented probability-based risk classification with interpretable outputs, enabling scalable and data-drive decision support across heterogenous medical datasets.

Parallel Sorting Algorithms: Performance Profiling Jan 2025 - May 2025 [GitHub/Live]

- Implemented and benchmarked parallel Merge Sort and QuickSort using OpenMP, MPI, and Pthreads in C/C++, achieving up to 1.8x speedup over serial execution.
- Conducted performance profiling and scability analysis using gprof, valgrind, and htop, identifying bottlenecks and visualizing execution trends via Python

Authentication of Product & Counterfeits Elimination Using Blockchain Aug 2024 - Dec 2024 [GitHub/Live]

- Designed a Python-based blockchain system for secure product authentication, achieving 98% detection accuracy and reducing verification time by 40% using digital signatures and QR-based validation.

Technical Skills

Languages: Python, C++, JavaScript, Java, HTML, CSS
Frameworks: React, Node.js, Next.js, Django, Flask
Cloud & Tools: AWS, Docker, Git, Linux, REST, Distributed Systems, DSA, OOD, AI/ML, DBMS, CI/CD
Databases: MongoDB, SQL

Publication

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

Patents

Yasesvi Reddy Pebbeti, et al. "Portable Solar-Powered Autonomous Soil Moisture Detection and Alert System." India Patent (Published), 2026. Application No. 202641023372