

Shivadhar Reddy Maddi

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EDUCATION

Iowa State University

Ames, IA

Bachelor of Science in Computer Science | Minors: Entrepreneurship, Applied Artificial Intelligence

Expected Dec 2026

Relevant Coursework: Data Structures & Algorithms, Operating Systems, Database Systems, Software Engineering, Machine Learning, Computer Networks, Object-Oriented Design

EXPERIENCE

Vensol Global Pvt Ltd

Hyderabad, India

Full-Stack Software Intern

May 2026 – Aug 2026

- Built payroll workflows using **React, JavaScript, TypeScript, Node.js, and PostgreSQL**, cutting processing time by **~65%**.
- Developed invoicing, reporting, transaction, and role-based workflows supporting **300+ users** across multiple branches.
- Supported **AWS and Vercel production deployments** and resolved frontend, backend, and database issues to improve reliability.

Iowa State University — Digital Ag Innovation Lab

Ames, IA

Web Systems Lead

Jan 2026 – May 2026

- Built **React and HTML prototypes**, then deployed **14+ production research pages** in Drupal and SharePoint using reusable templates that improved **accessibility** and reduced repetitive updates.
- Improved **navigation, content structure, and usability** while coordinating technical fixes, releases, and site improvements with researchers and ISU IT.

Swas Industries

Chennai, India

Software Engineering Intern

May 2025 – Aug 2025

- Built **React, Node.js, and REST API** features for an internal quality and logistics platform, reducing manual tracking by **~80%**.
- Developed reusable components and backend services that centralized operational data and reduced duplicate entry.
- Improved deployment and code quality using **Docker, Kubernetes, GitHub Actions, unit testing, and code reviews**.

PROJECTS

TaskForge — Distributed Job-Processing Platform

Dec 2025

- Built a **distributed job-processing platform** using **Python, FastAPI, PostgreSQL, and Redis** with asynchronous workers, priority queues, scheduled jobs, concurrent execution, and **AI/LLM workloads**.
- Implemented **worker heartbeats, exponential-backoff retries, dead-letter handling, and idempotent job submission**; containerized services with **Docker** and automated testing with **pytest and GitHub Actions on Unix/Linux**.

Polly Press — Android News Application

May 2025

- Built a full-stack **Android application in Java** with authentication and **role-based workflows** for readers, reporters, and administrators.
- Developed **REST APIs, WebSockets, and MySQL-backed services** supporting real-time updates, publishing, user management, polls, moderation, and content delivery.

Real-Time Traffic Sign Detection & Recognition

Mar 2026

- Trained **CNN, MobileNetV2, ResNet-50, and YOLOv5** models on **39K+ images across 43 classes**, achieving **99.68% test accuracy** with ResNet-50.
- Built a real-time **machine learning and computer vision pipeline** using **Python, OpenCV, and YOLOv5** for detection, classification, and live visualization.

TECHNICAL SKILLS

Languages: Python, Java, C++, C, TypeScript, JavaScript, SQL

Backend & Data: Node.js, FastAPI, REST APIs, WebSockets, PostgreSQL, MySQL, MongoDB, Redis

Frontend & Mobile: React, Next.js, Android, Tailwind CSS, HTML, CSS, Accessible Web Development

Systems & DevOps: Unix/Linux, Distributed Systems, Networking, AWS, Docker, Kubernetes, Git, GitHub Actions

AI & Testing: Machine Learning, Computer Vision, Generative AI, LLM APIs, OpenCV, pytest, JUnit, Jest

LEADERSHIP

CS Help Room Tutor — Iowa State University Dept. of Computer Science

Aug 2026 – Present

- Tutor **50+ students weekly** in **C, C++, Java, data structures, algorithms, debugging, and programming problem-solving**.

Team Leader — Iowa State University Destination Iowa State

Aug 2025, Aug 2026

- Led and mentored **43 students across two orientation cohorts**, coordinating activities, schedules, and campus resources.