

SREEYUTH CHOWDARY GUNNAM

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EDUCATION

B.S. Computer Science

Dec 2026 (Expected)

Northwest Missouri State University, Maryville, MO

GPA 3.6/4.0

- **Relevant Coursework:** Data Structures & Algorithms, Database Management, Computer Networks, Operating Systems

WORK EXPERIENCE

Software Developer

Sep 2024 - Present

Learning and Teaching Center, Maryville, MO

- Built and maintained an Adjunct Faculty Management System that delivers role based dashboards for provosts, chairs, and coordinators using FastAPI, Vue.js, and MySQL
- Designed REST APIs with OpenAPI documentation and implemented JWT authentication, LDAP integration, and role based access control across four permission levels
- Automated data ingestion and aggregation from Canvas LMS and EvaluationKit to replace manual reporting workflows for university leadership
- Improved performance by reducing evaluation processing time by 40 percent and API latency by 25 percent using async database operations, connection pooling, indexing, and query optimization with SQLAlchemy and aiomysql
- Increased production reliability by expanding unit test coverage and adding structured logging to speed debugging and prevent regressions

PROJECTS

Podcast Brain

- Built a full stack AI podcast platform that transcribes audio and supports retrieval augmented generation (RAG) question answering using Next.js 14, TypeScript, and Supabase
- Implemented a RAG pipeline using transcript chunking, OpenAI embeddings, and PostgreSQL pgvector similarity search for semantic retrieval
- Benchmarked on 5 podcast episodes of about 1 hour each, indexing about 75 transcript chunks and generating embeddings in batches of 20 chunks per request
- Achieved about 120 ms average top 5 retrieval latency on Supabase free tier and about 1.8 seconds average time to first streamed response using GPT 4 streaming

Gesture Code

- Developed and published a VS Code extension on Open VSX using TypeScript that enables hands free editor control through webcam gesture recognition
- Implemented MediaPipe Hands gesture classification using 21 hand landmarks with handedness aware detection and stabilization logic to reduce false positives
- Built a Node.js HTTP server and browser workflow to bypass VS Code Content Security Policy restrictions on WebAssembly and execute mapped VS Code commands

Pose Fitness Coach

- Developed a real time pose estimation fitness coach using Python, MediaPipe, and OpenCV to track 33 body landmarks and count repetitions across 8 exercises using state machine logic
- Designed an object oriented exercise tracker framework and created a pytest suite with 33 test cases to validate angle calculations and repetition state transitions

SKILLS

Languages: TypeScript, Python, Java, JavaScript, SQL

Frameworks / Libraries: Next.js, React, FastAPI, Node.js, Vue.js

Databases: PostgreSQL, Supabase, MySQL, MongoDB, pgvector

AI and Computer Vision: OpenAI API, AssemblyAI, MediaPipe, OpenCV

Tools: Git, GitHub, GitLab, Docker, Vercel, VS Code, Postman, pytest

Core: Data Structures & Algorithms, OOP, OOD, RESTful APIs, Authentication (JWT, RBAC), Unit Testing, Debugging, Async programming

CONFERENCES / ORGANIZATIONS

CCSC Central Plains 2025 Conference

Apr 2025

Drake University, Des Moines, IA

- Presented research poster: Enhancing Adjunct Faculty Performance Prediction by Applying SMOTE Techniques.

Association of Computing Machinery (ACM)

- Member at NWMSU