Tanay Tammineni

linkedin.com/in/tanaytammineni | tanaytammineni22@gmail.com | +1 816-277-9463 | github.com/tanaytammineni

PROFESSIONAL SUMMARY

AI Systems Developer (MS, 3.9 GPA) focused on real-time AI applications, audio processing, and scalable web systems. Experienced in building low-latency streaming pipelines, integrating Large Language Models (LLMs), and delivering production-ready AI features. Proven track record of engineering automated backend workflows and bridging complex backend architectures with seamless frontend user experiences.

PROFESSIONAL EXPERIENCE

Automate365 Remote

AI Systems Developer Intern *Apr 2025 – Present*

- Built LiveWire, a real-time AI sales co-pilot Chrome extension capturing tab and microphone audio using MediaStream APIs for live conversation analysis.
- Designed a 48kHz PCM audio processing and low-latency WebSocket streaming pipeline, reducing end-to-end inference latency by ~40%.
- Integrated OpenAI Whisper and LLMs to enable live transcription (95%+ accuracy), objection detection, and dynamic response generation.
- Debugged complex Windows audio routing issues (WASAPI, Voicemeeter, VB-Cable) to ensure reliable multi-source audio capture.
- Automated backend workflows to generate structured call summaries and push insights into CRM systems.

Globalshala Hyderabad, India

Software Engineer Intern *Jun 2022 – Dec 2022*

- Designed and implemented user-friendly interfaces using HTML5, CSS3, JavaScript, and Angular, ensuring responsive and engaging user experiences.
- Integrated AgGrid to display transaction data with features like sorting, filtering, and real-time updates via custom cell renderers.
- Boosted productivity by 30% applying core Java concepts including Collections Framework, Exception Handling, Multi-Threading, and JDBC.
- Leveraged AZURE Databricks to establish ETL pipelines and harnessed Power BI for Analytics reports to facilitate data-driven decision-making.

PROJECTS

Real-Time Vehicle Detection, Counting, and Classification

- Developed a real-time vehicle detection and classification system using OpenCV, YOLO, and TensorFlow, achieving 88% accuracy.
- Improved detection accuracy in varying conditions by applying video preprocessing techniques like background subtraction and noise reduction.
- Implemented vehicle counting and classification algorithms, enhancing traffic flow analysis with minimal error rates.
- Integrated the system into a scalable, real-time dashboard for visualizing traffic patterns aiding in management.

Real-Time Chat Application

- Engineered a real-time chat application leveraging Node.js, Express, and Socket.io to facilitate instant messaging with minimal latency.
- Structured a MongoDB schema to organize user profiles, chat history, and messages, incorporating JWT for secure authentication.
- Crafted a responsive front-end using React.js and deployed on Heroku for continuous scalability and real-time responsiveness.

E-Commerce Website built with Django

- Built a Django-based e-commerce platform with secure user authentication and integrated Stripe/PayPal payment gateways.
- Designed a scalable database schema to manage products, user profiles, and orders with advanced search functionalities.
- Developed a responsive front-end and deployed the application on AWS for high availability and security.

EDUCATION

Southeast Missouri State University Cape Girardeau, MO

Master of Science in Computer and Information Sciences - GPA: 3.9 *Jan 2024 – Dec 2025*

TECHNICAL SKILLS

AI & Machine Learning: PyTorch, TensorFlow, OpenAI API, Whisper, LLMs, OpenCV, YOLO.
Streaming & Audio: WebSockets, WebRTC, MediaStream APIs, Audio Signal Processing, WASAPI.
Web Development: React.js, Angular, Node.js, Django, Spring Boot, Spring MVC, HTML/CSS.
Languages: Python, Java, JavaScript, C, SQL, MATLAB.
Cloud & DevOps: AWS (EC2), Azure (Databricks, VMs), Docker, Git, Jenkins, JIRA.

AWARDS & AFFILIATIONS

Published "Real Time Video Based Vehicle Detection, Counting and Classification" in CVR Journal of Science and Technology (E-ISSN 2581-7957).

Won 3rd prize for "Real Time Video Based Vehicle Detection" in Project Expo2K23 organized by Dept. of CSE in association with CSI.