

# Adithya Sharma

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## EXPERIENCE

### Artificial Intelligence developer Intern

May 2025 – Aug 2025

Viswam AI (*open-source*)

Hyderabad, India

- Engineered a Telugu-language conversational AI by processing 500+ hours of speech data, boosting model accuracy from 82% → 97%.
- Built and optimized a CHATGPT like prototype capable of handling concurrent users with improved latency and scalability.

## PROJECTS

### Real-Time Voice Translator | [GitLink](#) | React + TypeScript, FastAPI, PostgreSQL, WebRTC, WebSocket

- Built full-stack web app for bidirectional voice translation with 13+ languages.
- Implemented real-time audio streaming using WebRTC and WebSocket (250ms chunks).
- Integrated Google Cloud Speech-to-Text API with concurrent processing (max 3 parallel).
- Set up CI/CD pipeline with GitHub Actions, Docker containerization, Terraform IaC.
- Achieved <3s end-to-end latency with async concurrency limiting and keepalive.

### Real-Time Collaboration Platform (CollabDocs) | [GitLink](#) | React + TypeScript, FastAPI, PostgreSQL, Redis, WebSocket

- Developed real-time collaborative document editor with live cursor tracking.
- Architected WebSocket server handling 50+ concurrent users with presence tracking.
- Implemented JWT authentication, auto-save, version history, and user permissions.
- Containerized with Docker Compose, automated deployment with GitHub Actions.
- Reduced deployment time by 70% with CI/CD pipeline and infrastructure automation.

### Voice-Based Gender Detection System | [GitLink](#) | Python, TensorFlow, Librosa, MLP

- Designed and trained a deep learning model using Mel-Spectrogram features, achieving 95% accuracy and 94% precision.
- Automated extraction from 60,000+ WAV files, reducing preprocessing time by 40%.
- Integrated real-time audio classification and CSV-based data handling for live prediction.

## TECHNICAL SKILLS

- Programming Languages:** Python, TypeScript, JavaScript, Java, C, Golang
- Frontend Development:** React.js, TypeScript, Material-UI, HTML5, CSS3, Vite
- Backend Development:** FastAPI, Flask, WebSocket, RESTful APIs, JWT Authentication
- Databases:** PostgreSQL, MySQL, Redis, SQLAlchemy ORM
- Cloud & Infrastructure:** AWS (ECS, RDS, S3, CloudFront, EC2), Docker, Terraform
- DevOps & CI/CD:** Docker Compose, GitHub Actions, Nginx, Linux/Unix
- Real-time Technologies:** WebSocket, WebRTC, Async/Await, Event-driven Architecture
- Machine Learning:** TensorFlow, scikit-learn, pandas, numpy, NLP, Deep Learning
- Development Tools:** Git, VS Code, Postman, pytest, npm

## ACHIEVEMENTS

- Academic Excellence: Secured an All-India Rank under 10,000 in the JEE Advanced 2022, one of the most competitive engineering entrance examinations globally.
- Murf Coding Hackathon: Secured 2nd place in an all-India Hackathon Murf Coding challenge among nearly 4000 participants winning prize money of 300\$ with my team. ([Certificate](#))
- Tech Hack 3.0: Secured 4th place among nearly 1000 participants in the Tech Hack 3.0 developing a full stack application which helps users managing their finances within a 48-hour timeframe. ([GitLink](#))

## EDUCATION

### Anurag University

Bachelor of Tech. in Electronics and communication (CGPA: 9.21)

Hyderabad, India

Nov.2022- June. 2026