

Midhun Chakkaravarthy K

Portfolio [↗](#) - LinkedIn [↗](#) - GitHub [↗](#)

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EXPERIENCE

- Sayvai Software** Remote
 - Full Stack Developer Consultant (Freelance)* June 2024 – Present
 - Voicebot Configuration Dashboard:** Developed a client-facing dashboard to configure **3 core functionalities: Speech-to-Text (STT), Text-to-Speech (TTS), and Large Language Model (LLM) settings**. Incorporated **Livekit** for real-time communication via **WebRTC**, enabling low-latency audio streaming for seamless voice interactions.
 - Custom Model Creation & Multiple Agent Configuration:** Designed and deployed a feature to create custom voice agents, supporting 10+ simultaneous agent configurations from a single dashboard. Utilized **Supabase, SQLAlchemy, and Alembic** for efficient database management and schema migrations, enabling clients to manage and scale their voice agents effortlessly.
 - CMS Platform Development:** Built a custom CMS platform from scratch using **React.js and FastAPI**, enabling 30+ users to create and manage websites. Integrated the proprietary Voicebot and Chatbot models into the CMS, enabling clients to embed and configure these models directly into their websites. Leveraged **Supabase** for real-time database updates and streamlined content management.
- Smartail Private Limited** Chennai, India
 - Project Engineer Intern* December 2023 – May 2024
 - Admin Portal & Initial Configuration:** Restructured and enhanced the admin portal, serving as the entry point for the application. This configuration setup manages **70+ schools and 65,000+ students**, enabling schools to configure critical details such as classes, subjects, syllabi, and publications. Built new components and APIs using **Angular (frontend) and Java Spring Boot (backend)**, ensuring seamless navigation and functionality for school administrators.
 - Full-Stack Development & Bug Fixes:** Worked on both **frontend (Angular) and backend (Java Spring Boot, Python Flask)** to implement new features, optimize performance, and resolve bugs. Delivered **10+ new UI components**, enhancing user experience. Utilized **Docker for containerization and Kafka for real-time data streaming**, improving system reliability and scalability.
 - Production Release Leadership:** Led a major production deployment, coordinating with the development team to roll out new features, improve stability, and resolve critical issues. **Successfully managed the release process**, ensuring a smooth transition to the live environment for all 70+ schools and their users.
- Smartail Private Limited** Chennai, India
 - Project Engineer Intern* June 2022 – December 2022
 - Image Extraction Mechanism:** Worked on a frontend image extraction mechanism for 2 types of questions: subjective and objective, streamlining the extraction process. Added **MathLive Keyboard and KaTeX** for rendering mathematical equations, enabling accurate extraction and display of math questions from images.
 - UI Development & API Integration:** Designed and implemented various UI components and complete pages using **Angular**. Created and integrated multiple APIs with **Java Spring Boot** backend to ensure seamless data flow and functionality between the frontend and backend systems.
 - Bug Fixes & Enhancements:** Identified and **resolved 30+ UI and functionality-related bugs**, improving the overall user experience. Optimized existing features for better performance and stability, ensuring a smooth and reliable application.

PROJECTS & ACHIEVEMENTS

- WebSense Search** [↗](#) (Next.js, FastAPI, DistilBERT, FAISS(Vector DB)): This project enables users to search for specific queries within webpage content, extracting and ranking matches by similarity and match percentage(e.g., **25% match**).
- Chat App** [↗](#) (MERN (MongoDB, Express.js, React, Node.js), WebSockets, Tailwind CSS.): The app enables users to find online users, engage in one-to-one and broadcast messaging, and access persistent message history even after logout or refresh.
- Hackathon (Event Hub** [↗](#)) & Certification: Secured top 10 in the Mitsubishi Hackathon [↗](#) and 1st place in the Melinia Hackathon [↗](#), Completed the Operating System course on NPTEL [↗](#)
- Leadership Roles:** Served as Student Internship Coordinator at CIT, Conducted a Full-Stack Development workshop [↗](#) and School Pupil Leader during Higher Secondary education.

SKILLS SUMMARY

- Languages:** C, Java, Python, JavaScript, TypeScript, SQL.
- Frameworks:** Angular, React, Next.js, Node.js, Express, Spring Boot, Tailwind CSS.
- Databases:** MongoDB, PostgreSQL, MySQL, Supabase.
- Tools:** AWS, Kubernetes, Git, Docker, SQLAlchemy, Alembic, Livekit, Kafka.
- Core:** Data Structures and Algorithms, Object-Oriented Programming, Operating Systems.

EDUCATION

- Coimbatore Institute of Technology** Coimbatore, India
 - Master of Science in Software Systems, Cumulative GPA: 8.43/10* July 2019 – May 2024