

Sandeep Kumar Suresh

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Education

Present Jan 2024	IIT Madras M.S. student in Electrical Engineering (EE) under the guidance of Prof. Gaurav Raina	Chennai, India
July 2021 Aug 2017	College of Engineering Chengannur B.Tech, Electronics & Communication Engineering	Kerala, India

Experience

Present Jul 2024	Immersive Technology and Entrepreneurship Labs Foundation <i>Project Associate Advisor: Prof. Ashok Jhunjunwala</i> <ul style="list-style-type: none">➤ Developing an end-to-end pipeline for Continuous Sign Language Recognition, focusing on efficient model deployment and seamless integration.➤ Collaborating with a startup to design and implement Digital Human.	Chennai, India
Jun 2024 Jul 2022	CEET IIT Madras Research Park <i>Project Associate Advisor: Prof. Ashok Jhunjunwala</i> Developed innovative solutions for complex problems, focusing on scalability and efficiency.	Chennai, India

Select Projects

Isolated Sign Language Recognition Jan'24 - Present
Advisor: [Prof. Ashok Jhunjunwala](#)

- Developed a robust data pipeline to handle both in-house custom datasets and existing datasets, ensuring seamless data preprocessing and integration.
- Contributed to model development and hyperparameter tuning, optimizing performance for targeted tasks.
- Achieved significant improvements in model accuracy [Working Paper]

Face Recognition Attendance System Development Jul'24 - Aug'24

- Collaborated as part of a team to develop the codebase for a Face Recognition-based Attendance System, streamlining attendance tracking using cutting-edge facial recognition technology.
- Contributed to optimizing backend performance, improving system reliability, and ensuring smooth deployment for production use.

WhatsApp-based AI Chat Application Development Aug'24 - Sep'24

- Played a key role in the design, development, and deployment of an AI-powered Chat Application built on top of WhatsApp, tailored for sending automated payment reminders to RP clients.
- Integrated AI capabilities to personalize reminders and enhance user engagement, improving client compliance with payment schedules.

AWCV Project – Indoor Positioning and Chat Application Development May'23 - Jul'23

- Led a team of interns to develop an Indoor Positioning System based on computer vision, enabling accurate location identification within the IITM Research Park.
- Collaborated with a team from Uniphore on a secondary task to develop a chat application for answering questions related to the Research Park.
 - Utilized the RASA framework for building the chatbot and enhanced it using Pinecone to improve response accuracy and information retrieval.
 - Integrated the RASA chatbot into the Virtual Guide System, providing users with a seamless and interactive experience.

References

- Prof. Ashok Jhunjunwala *Professor, IIT Madras, India* 📄
- Prof. Gaurav Raina *Professor, IIT Madras, India* 📄