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** *Project Associate | Advisor: Prof. Ashok Jhunjhunwala*	**Chennai, India**

> 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.

Jun 2024 **Jul 2022**	**CEET | IIT Madras Research Park** *Project Associate | Advisor: Prof. Ashok Jhunjhunwala*	**Chennai, India**

Developed innovative solutions for complex problems, focusing on scalability and efficiency.

Select Projects

Isolated Sign Language Recognition   Jan'24 - Present
Advisor: Prof. Ashok Jhunjhunwala

> 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 Jhunjhunwala ....*Professor, IIT Madras, India* [🌐]
> Prof. Gaurav Raina ....*Professor, IIT Madras, India* [🌐]