# SATHIYA MURTHI SANKARAN

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## EDUCATION

**University of Southern California, Viterbi School of Engineering** — Los Angeles, CA
**Master of Science in Computer Science** — Jan 2023-Present

**Anna University, Madras Institute of Technology** — Chennai, India
**Bachelor of Engineering in Electronics and Communication Engineering** — Aug 2018–Jul 2022
**Honors:** Best Outgoing Student 2021 - 2022 — GPA: 9.52/10

## EXPERIENCE

**IIT Madras, Applied Mechanics Department** — Chennai, India
**Project Engineer – AI in Ultrasound** — Aug 2022–Dec 2022
- Fetal Ultrasound Analysis using AI - Applied Deep learning to Fetal US images to perform Fetal Biometry and Plane Classification.
- Involved data collection, cleanup, labeling, processing and training and integration of modules.

**Zummit Infolabs** — Remote
**Technical Lead (Part-time)** — Mar 2022–May 2022
**Junior Data Scientist (Intern)** — Oct 2021–Mar 2022
- Third Eye - Deep Learning based application to aid the visually impaired in daily tasks. Implemented obstacle detection and navigation. Merged modules and deployed on Raspberry Pi.
- Received 'Star of the month' award – January 2022

**Coovum Smart Systems - Image Processing Intern** — Remote, Apr 2021–Aug 2021
- Developed an algorithm for Human body measurement extraction from 2D images using Image Processing and Deep Learning.

**Wipro Limited - Intern** — Remote, Jun 2021–Jul 2021
- Implemented Site Reliability Engineering. Involved application development, deployment and monitoring with a dashboard.

## ACADEMIC PROJECTS

**Defect Prediction in Additively Manufactured Components** — IIT Madras, Materials Engineering Department, Jul 2022–Dec 2022
- Developed defect detection and classification algorithm and packaged it in to a web-based application.
- Analyzed defect percentage and localization based on process parameters.

**Reinforcement Learning based Automated Path Planning** — Madras Institute of Technology, Jan 2022–Jun 2022
- Performed hardware implementation of Reinforcement Learning based path planning to generate a map of a new environment.
- Interfaced Kinect Stereo camera with NVIDIA Jetson Nano for depth estimation based obstacle detection.

## LEADERSHIP AND INVOLVEMENT

**Project Third Eye - Technical Lead** — Zummit Infolabs, India
- Managed a team of six, responsible for tracking progress, task identification and allocation. — Mar 2022–May 2022

**MIT Robotics Association - Joint Secretary** — Madras Institute of Technology, India
- Conducted workshops and organized club events — Aug 2020–May 2021

## SKILLS

- **Programming and Technologies:** C++, Python, Java, Deep Learning, Image Processing, Micro Controllers, Cloud, Linux Shell
- **Tools and Frameworks:** TensorFlow, OpenCV, AWS EC2, Git, Streamlit, Grafana, Prometheus, Flask
- **Certifications:** Deep Learning Specialization (DeepLearning.ai), TensorFlow Developer Professional Certificate (DeepLearning.ai), Google IT Automation with Python Professional Certificate, Machine Learning (Stanford University)

## PUBLICATIONS

- "*Defect Prediction in Additively Manufactured Components by Artificial Intelligence and Machine Learning*", presented at National Welding Seminar, India – Jan 2023
- "*Reinforcement based Automated Path Planning in Garden Environment using Depth – 'RAPiG-D'*", presented at Second International Conference on Artificial Intelligence and Knowledge Processing, Woxsen University, Hyderabad, India. – Jul 2022