

# Satini Sankeerthana

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**LinkedIn:** <https://www.linkedin.com/in/satinisankeerthana>

**GitHub:** <https://github.com/sankeerthana14/Data-Science-and-AI.git>

**Upwork:** [https://www.upwork.com/freelancers/~01f89d0e60eecee9c5?mp\\_source=share](https://www.upwork.com/freelancers/~01f89d0e60eecee9c5?mp_source=share)

## EDUCATION

**Nanyang Technological University: BEng. Computer Science Hons (Distinction) 2019 – 2023**

- **Specialization:** Artificial Intelligence

## RESEARCH INTERESTS

- **Research Interests:** Object Detection, Computer Vision, Deep Learning (DL), Semi-supervised Learning, Incremental Learning, Applied ML.

## WORK EXPERIENCE

**Freelance Data Science and ML Engineer March 2024 – Present**

Freelancing - Upwork

- Currently working on a freelance project on Sales Prediction, Pricing and Product Allocation for a Data Analytics Consultancy based in Singapore using Data Analytics and ML.
- **Transferable Skills:** ML Modelling, Data Analytics, Problem-Solving, Communication.

**Research Engineer Dec 2023 – Jan 2024**

Singapore Management University (SMU)

- Developed data-loading, processing and modelling pipelines for a vision-based throat cancer diagnosis system by engineering robust object detection models.
- Developed novel approaches for video classification to ensure robustness in processing large-scale, real-world medical image data.
- **Transferable Skills:** ML Modelling, Pipeline Development, Research Writing, Innovation, Initiative, Problem-Solving, Communication.

**Machine Learning Engineer Aug 2023 – Oct 2023**

Carecam

- Collaborated closely with researchers to develop a vision-based Software as a Medical Device (SaaMD) product that aids clinicians in their diagnosis of the patient's gait.
- Successfully solved critical bottlenecks by integrating LIDAR data and optimizing the pipeline involving tasks like scaling, smoothing, normalization and data manipulation.
- Led the migration of training and deployment codes to AWS to build a cloud solution.
- **Transferable Skills:** Image Processing, Pipeline Development, Cloud Migration, Problem Solving, Innovation, Collaboration, Communication.

**Computer Vision Intern Aug 2022 – Nov 2022**

Asurion

- Collaborated closely with engineers to develop an AI assisted Mobile Phone Insurance Product that detects cracks and damage intensity done to a phone using YOLOv5.
- Optimised the data-loading, processing and modelling pipeline, conceptualised an automated Continuous ML Feedback Loop as part of the CI/CD process using AWS Service and implemented 3D Object Detection Models using Point Clouds.
- **Transferable Skills:** Data Collection, Processing Pipeline, Modelling, Cloud Solutions Development, Research, Communication.

**Data Scientist Intern May 2021 – Dec 2021**

A\*STAR – Institute for Infocomm and Research (I<sup>2</sup>R)

- Collaborated closely with scientists to develop a vision-based 2D object detection system for Autonomous Service Robots in Hospitals, through a Semi-Supervised Learning Approach.

- Led the training and optimization for object detection models to assess Semi-Supervised and Incremental Learning efficacy.
- Researched and Implemented incremental learning and semi-supervised learning approaches to mitigate catastrophic forgetting that were published in 2 International Conferences.
- **Transferable Skills:** Data Processing, Modelling & Optimization, Research Writing, Collaboration, Problem-Solving, Innovation.

#### Data Analytics Intern

July 2020 – Nov 2020

##### Learnseeker

- Designed and Developed Dashboards to extract insights from data using Looker Studio to aid tuition centres in providing a personalised learning experience for the students.
- **Transferable Skills:** Data Analytics, Dashboard Design and Development, Problem-Solving, Communication.

### PUBLICATIONS

- **International Conference on Social Robotics (ICSR) 2021**
  - Pahwa, R. S., Chang, R., Jie, W., **Satini, S.**, Viswanathan, C., Yiming, D., Jain, V., Pang, C. T., & Wah, W. K. (1970, January 1). A survey on object detection performance with different data distributions. SpringerLink. [https://link.springer.com/chapter/10.1007/978-3-030-90525-5\\_48](https://link.springer.com/chapter/10.1007/978-3-030-90525-5_48)
- **Conference on Learning Factories 2022**
  - Chang, R., Pahwa, R. S., Wang, J., Chen, L., **Satini, S.**, Wan, K. W., & Hsu, D. (2022, April 7). Creating semi-supervised learning-based Adaptable Object Detection Models for Autonomous Service Robot. SSRN. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4075994](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4075994)

### PROJECTS

#### Trivia Telegram Bot Using ChatGPT

Aug 2023 – Dec 2023

##### Nanyang Technological University

- An end-to-end group project where we developed a Telegram Bot by incorporating ChatGPT API that allows users to play Trivia. Was responsible for creating the telegram bot and integrating ChatGPT with the telegram bot.
- **Transferable Skills:** Usage of APIs, Communication, Problem-Solving, Innovation, Teamwork.
- **Project Link:** <https://github.com/sankeerthana14/Trivia-Telebot-ChatGPT.git>

### TECHNICAL SKILLS AND CERTIFICATIONS

**Programming Languages:** Python | MATLAB

**ML and Data Science:** Tensorflow | PyTorch | Pandas | NumPy | OpenCV Seaborn | Matplotlib | Data Mining | Insight generation | Google Looker Studio | Tableau | Microsoft Power BI

**AWS Services:** SageMaker | Lambda | S3

**Operating Systems:** Linux

**Certifications:**

1. [Machine Learning Stanford University - Coursera](#)
2. [Python for Data Science and Machine Learning - Udemy](#)

### CO-CURRICULAR ACTIVITIES, LEADERSHIP ROLES AND ACHIEVEMENTS

#### Vice-Chairperson

2020 – 2022

##### Tiong Bahru Youth Network (A Grassroots Voluntary Organization)

- Spearheaded Coding Competition and Workshops for secondary school students. This included coming up with content for the workshop as well as conceptualising and executing the theme and judging criteria.
- Actively volunteered in many food and recycling drives as well as voluntary events targeting the elderly and children.