Satini Sankeerthana

Address: 351, Choa Chu Kang Ave 3, #12-03, Singapore 689879
Phone: +65 83320291 **| Email:** sankeerthana.satini3@gmail.com
LinkedIn: https://www.linkedin.com/in/satinisankeerthana
GitHub: https://github.com/sankeerthana14/Data-Science-and-AI.git

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

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^{2}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*
- **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*

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.