

# Jameel Hassan Abdul Samadh

jhassan.tck14@gmail.com | [Webpage](#) | [LinkedIn](#)

## Experience

**MACHINE LEARNING ENG.** | [VeracityAI](#) |  
(Oct 2021-Present)

- Designing ML algorithms (computer vision) to automate the vehicle insurance claiming process.
- Designed a car localization model using Mask RCNN for image segmentation to improve damage detection model TP rate by 12%.
- Implemented an efficient loss based sampling strategy for the damage detection training process.

**RESEARCH ASSOCIATE** | **UNIV. OF PERADENIYA** | **FACULTY OF ENG.** |  
(Aug 2020 - Sep 2021)

- Designed a computer vision framework to detect humans, human interactions and masks to provide a threat assessment for COVID-19 from CCTV footage.
- Designed an optimization algorithm and a sensitivity matrix method to reduce voltage violation in electricity grid due to high solar penetration.

**ENGINEERING INTERN** | **VEGA INNOVATIONS** | [Webpage](#)  
(Feb 2019 - May 2019)

- Tested and troubleshooted the electric vehicle fast charger.
- Designed the wiring circuit and setup the hydroponic rack.

## Publications *related* ([gScholar](#))

- **AS Jameel Hassan**, Gihan Jayatilaka, et al, “Hands Off: A Handshake Interaction Detection and Localization Model for COVID-19 Threat Control”, 2021 16th IEEE ICIIS  
[Published](#) [C]
- **AS Jameel Hassan\***, Gihan Jayatilaka\*, et al, “Holistic Interpretation of Public Scenes Using Computer Vision and Temporal Graphs to Identify Social Distancing Violations”. Computer Vision & Image Understanding, Elsevier  
[Submitted to journal](#) [J]

[J]: Journal

[C]: Conference

## Education

**UNIVERSITY OF PERADENIYA**, Sri Lanka  
**BSC. ENGINEERING (HONS)** - July 2020  
Electrical & Electronics Engineering  
CGPA 3.65/4.0 (Top 10%)

## Projects

**VISUALIZING RNNs** | **SELF EXPLORATION**  
[Github Link](#)

- Visualizing and analyzing neuron activations in RNNs.  
Inspired by Visualizing RNNs [paper](#) and [blogpost](#).

**COURSE DEVELOPER** | **PROJECT NENATHAMBARA** | [Webpage](#)  
(Mar 2021 - Present)

- Created programming exercises and lessons.
- Translated teaching script to Tamil.
- Recruited 10 members to the team.

**UNDERGRAD RESEARCH PROJECT** | **2020**

- Designed an optimized scheduling and control algorithm to predict the power outputs of the stochastic renewable systems and dispatch power.

**SMART HAPTIC HEADPHONE** | **2018**

- Designed a smart headphone using ATTINY that plays and pauses music when worn and removed accordingly.

**AUTOMATIC LIGHT CONTROLLER** | **2018**

- Designed an automatic light controller for a room using PIC16f84A to control lighting while keeping count of people in the room.

**COLOR SENSING ROBOT ARM** | **2017** | [Video](#)

- Designed a robotic arm with a color sensor to sort objects using Arduino.

## Skills

Python | MATLAB | Tensorflow | C  
Version Control | Linux systems  
Data Structures & Algorithms

Research | Creative Writing | Event Moderation |  
Trilingual: English, Tamil, Sinhala |  
Drama | Fretwork |