

Jameel Hassan Abdul Samadh

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Education

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

Experiences

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.

Leadership & Skills

- Project Chair: Innovate to Elevate by Global Shapers Kandy - 2020
- Crew Leader: Drama Society, Faculty of Engineering - 2019
- Varsity Basketball - 2018/2019

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

Projects

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

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

COURSE DEVELOPER | **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.

Publications ([gScholar](#))

- **A. S. Jameel Hassan***, Umar Marikkar*, et al. "A Sensitivity Matrix Approach for Centralized Active Reactive Power Management of PV Systems integrated LV network", Energies journal, MDPI [Published](#) [J]
- **AS Jameel Hassan**, Gihan Jayatilaka, et al, "Hands Off: A Handshake Interaction Detection and Localization Model for COVID-19 Threat Control", 2021 IEEE ICIIS [Published](#) [C]
- **AS Jameel Hassan***, Gihan Jayatilaka*, Suren Sritharan* et al, "Holistic Interpretation of Public Scenes Using Computer Vision and Temporal Graphs to Identify Social Distancing Violations". Image and Vision Computing, Elsevier [Submitted](#) [J]

[J]: Journal

[C]: Conference