Jameel Hassan Abdul Samadh

jhassan.tck14@gmail.com | Webpage | LinkedIn

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%.
- Exploring 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.

UNDERGRAD RESEARCH PROJECT | 2020
- Designed an optimized scheduling and control algorithm to predict the power outputs of the stochastic renewable systems and dispatch power.

COURSE DEVELOPER | NENATHAMBARA | Webpage | (Mar 2021 - Present)
- Created programming exercises and lessons.
- Translated teaching script to Tamil.
- Recruited 10 members to the team.

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**