

Artificial Intelligence project in connection with AI Nexus Ltd.(London)

University and Country Sheffield Hallam University, UK

Date 7th February to 1st April 2019



Identification Object Using Machine Learning Technique

Sheffield Hallam University , UK

Prof.Terrence and Prof Marcos Rodrigues welcomed our team and had an introductory session about the Sheffield Hallam University and Dr.M.G.R. Educational and Research Institute.Prof Marcos Rodrigues briefly explained about the project on image processing in real world AI (Artificial Intelligence) and the importance of machine learning.In the first week of February, Prof Marcos gave insights on AI and its stages with relevant videos.In the second week of February,Prof Marcos had a deep discussion on training the neural networks for deep learning in image processing.Hegave insights about Generative Adversarial Networks, Image-to-Image Translation and Nouvelle AI. Our students presented about artificial intelligence learning algorithm and activation functions.

Prof Marcos arranged for a visit to Material and Engineering Research Institute. We had an interactive session with Dr.Nick Farmilo, he briefed on research infrastructure, polymer, nano technology, nano visible telescope, latest electron microscope machines used for testing the bridges, concretes and metal, chemical viscosity and 3D printing.

In the third week of February, student team were introduced to Deep learning on python language,architecture of Tensor flow and torch library. Students gave the presentation about their understanding and then they were collecting images of vehicles, animals and objects in various dimensions for better understanding on image processing and how to train neural network to learn about objects in different directions. With the help of tensor flow library the computational graphs are formed.

Prof Marcos arranged for a visit to Centre for Automation and Robotics Research. In CARR Dr.Lyuba Alboul M.Sc, Ph.D, Senior Research Fellow and her team members explained about variety of robot arms and mobile robots. The centre is having large space for testing mobile robot systems and equipped with different types of cameras and sensors for data recording. Research Students gave details on actions typically performed by robots ranging from large to medium and small sized mobile robots and they demonstrated the human machine interactions by robots and sensors. Nanorobotics is other major area of research in the centre. Professor Terrence arranged for a visit to flight simulation lab and student conference labs.

Finally, students team gave presentation on their understanding with sample program execution for classifying images with convolutional networks using tensor flow and pytorch tools. Our students executed their project by giving own data set as input to Python programming and got results of 98% accuracy. Professor Terrence arranged a sendoff meeting and presented a memento as the conclusion of the international learning experience.



Certificate of Participation

MR VIJAYAKUMAR ASOKAN

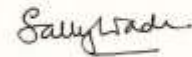
This is to confirm that the above individual has successfully contributed to the development of Artificial Intelligence based solutions for industrial in connection with AI NEXUS Ltd (London) within the Department of Engineering and Mathematics at Sheffield Hallam University from 01 February to 30 March 2019.

Prof Marcos Rodrigues
Project Supervisor



Faculty of Science, Technology & Arts
Sheffield Hallam University, United Kingdom

Prof Sally Wade
Deputy Dean

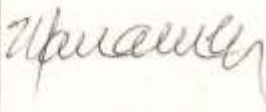


Certificate of Participation

MISS SADIA AFREEN ASIF

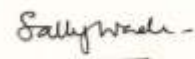
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MISS AKSHAYA BABUJI

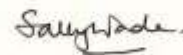
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DR THURAYUR VANATHAN ANANTHAN

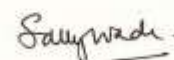
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DR GODHAVARI THIYAGARAJAN

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