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Vivek Talwar

Education

International Institute of Information Technology Hyderabad, Telengana, India
Master of Science, Computer Science and Engineering, *Jul' 20 - Jul' 23 (Expected)*

Institute of Technology, Nirma University, Ahmedabad, India
Bachelor of Technology, Electronics and Communications Engineering, *Jul' 16 - Jul' 20*
GPA: 7.16/10 (Overall)

Research Interests

Deep Learning, Natural Language Processing, Computer Vision, Optimization Methods

Publications

Likith Reddy, **Vivek Talwar**, Shanmukh Alle, Deva Priyakumar, Bapi Raju ,"**IMLE-Net**: An Interpretable Multi-level Multi-channel Model for ECG Classification" *IEEE International Conference on Systems, Man, and Cybernetics* (SMC), Melbourne, Australia

Work Experience

International Institute of Information Technology Hyderabad, Telengana, India
Research Intern, Healthcare and Artificial Intelligence Center
Researcher working in cohort of Applied AI for Healthcare domain under Intel Applied AI Center(INAI) initiative in collaboration with I-Hub Data. *Jul' 20 - Jul' 21 (Expected)*

Merkle, Pune Maharashtra, India
Business Intelligence Intern,
Reinforcement Learning in Digital Advertisement Industry: The project deals with study of how reinforcement learning is used to optimize click-through rate and auction rates of demand and supply side platforms in the advertisement industry. *Jan' 20 - Jul' 20*

Awards & Achievements

Awarded the **IIIT-H Research Fellowship** for Masters(By Research) Programme
National Winner, Tata Crucible Open Innovation Hackathon, 2018

Projects

Covid Cough Detector

Worked on a Flask based cough sample analysis web-application which detects Covid-19 virus for the Microsoft Champions League Hackathon where by collecting a ten second audio recording of a person's cough we were able to extract Chroma based features and Mel Cepstral Coefficients for doing a binary classification by using a Multi-Layer Perceptron and ConvNets on IISC "Co-Swara" Dataset.

Machine Learning on RaspberryPi with Training Model on Amazon Web Services

By running MXNet for predictions on the Raspberry Pi 3B+ Model and connecting it to the AWS Cloud with AWS IoT for training. The system doesn't rely on a constant high-bandwidth connection to stream video or expensive GPU servers in the cloud to process a video. In fact, by using AWS and MXNet on the Pi, we created a much more reliable and cost-effective smart camera system for object-recognition, object-detection and face-recognition related tasks.

Skills

Languages: C++, Python
Frameworks: Tensorflow, Pytorch, Keras
Libraries: Pandas, Matplotlib, Scikit-Learn, Numpy
Web Development: Django, Flask
Cloud Computing: Microsoft Azure, AWS

Certificates

Machine Learning, Stanford University, Coursera
Neural Networks and Deep Learning, Deeplearning.ai, Coursera