# Aditya Anantharaman

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### EDUCATION

Carnegie Mellon University

Pittsburgh, PA

Master of Computational Data Science (MCDS)

August 2019 - Dec 2020 (Expected)

National Institute of Technology Karnataka, Surathkal

Bachelor of Technology Information Technology

Surathkal, India

GPA: 9.54/10, Class Rank: 6/101

August 2015 - May 2019

## EXPERIENCE

Microsoft, R&D

Hyderabad, India

Software Engineering Intern

May 2018 - July 2018

- Developed a plug and play service for effective management, monitoring and usage of Test clusters for the Azure Networking Team.
- Facilitated easy check-in (locking) and check-out (unlocking) of clusters and devised health checks for the maintenance of clusters.
- Built a UI dashboard alongside the service for interacting and reporting.

## Indian Institute of Technology, Hyderabad (IITH)

Hyderabad, India

Research Intern at Visual Learning and Intelligence (VIGIL) lab.

August 2018 - December 2018

Advisor: Dr. Vineeth N Balasubramanian

- Developed a novel Multi-Space model for Zero-Shot Object Detection (ZSD).
- Leveraged both semantic and visual spaces and introduced a cross-modal consistency loss to alleviate the hubness problem in ZSD.
- Model outperformed the state-of-the art in ZSD on the Pascal VOC and MS-COCO datasets.

### Publications

- Mandikal Vikram, Aditya Anantharaman, Suhas B S and Sowmya Kamath, "An Approach for Multimodal Medical Image Retrieval using Latent Dirichlet Allocation", India KDD CoDS-COMAD 2019 (Oral Presentation). Short version accepted at AI for Social Good Workshop, NIPS 2018.
- Mandikal Vikram, Aditya Anantharaman, Suhas B S, Ashwin TS, Ram Mohana Reddy, "Kinect Based Suspicious Posture Recognition for Real-Time Home Security Applications", IEEE Indicon 18.

## Selected Projects

# Paraphrase Detection using Deep Learning Tensorflow, Python, NLTK

[Github]

Applied paraphrase detection to the medical domain of clinical notes. Developed a Bidirectional RNN model with multi-perspective matching and Attention mechanism.

## Parallel k-means Clustering OpenMP, MPI, CUDA, C++

[Github]

Used k-means clustering for Image Colour Quantization and Image Compression. Implemented on 3 platforms - OpenMP, CUDA and MPI with a speed up of order 10<sup>3</sup> in CUDA due to data parallelism.

## Android Malware Detection Tensorflow, Python

[Github]

Developed a Deep Autoencoder model for feature compression along with CNN and RNN based models. Performed pseudo-dynamic analysis of system API call sequences to generate features.

### Programming Skills

Languages and Scripts:

C++, C, Python, Java, C#, HTML, CSS, Javascript, MySQL

Deep Learning Frameworks: TensorFlow, PyTorch

Tools: Android Studio, OpenGL, Django, Git

# Achievements and Extra Curriculars

Microsoft code.fun.do Secured 2nd position for developing a smart library management app

Awards Awarded JN Tata Endowment Scholarship for pursuing higher studies

Lawn Tennis Winner at All India Inter-NIT Tennis Tournament 2017-18 and 2018-19

Organizations Student member at Institute of Electrical and Electronics Engineers (IEEE)