

ADITYA ANANTHARAMAN

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EDUCATION

Carnegie Mellon University, School of Computer Science Pittsburgh, PA
Master of Computational Data Science (MCDS) December 2020
Relevant Coursework: Computer Systems, Machine Learning*, Cloud Computing*, Interactive Data Science*,
Data Science Seminar* (* currently undertaking)

National Institute of Technology Karnataka, Surathkal Surathkal, India
Bachelor of Technology Information Technology May 2019
GPA: 9.54/10, *Class Rank:* 6/101
Relevant Coursework: Linear Algebra and Matrices, Soft Computing, Design and Analysis of Algorithms,
Computer Vision, Information Retrieval, Advanced Computer Networks, Time Series Analysis

EXPERIENCE

Indian Institute of Technology, Hyderabad (IITH) Hyderabad, India
Research Intern at Visual Learning and Intelligence (VIGIL) lab August 2018 - December 2018

- 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.
- Outperformed the state-of-the-art in ZSD on the Pascal VOC and MS-COCO datasets.

Microsoft 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.

PUBLICATIONS

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- 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, NeurIPS 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 2018.

ACADEMIC PROJECTS

Paraphrase Detection using Deep Learning | NITK | [Github](#) Spring 2018

- Applied paraphrase detection to the medical domain of clinical notes.
- Developed a bidirectional RNN model in Tensorflow with multi-perspective matching and attention mechanism.

Multimodal Medical Image Retrieval | NITK | [Github](#) Spring 2018

- Developed a statistical inference based model with visual topic modeling using Latent Dirichlet Allocation.
- Proposed novel early and late fusion techniques for fusing the visual and textual features.
- Late fusion technique obtained a higher mAP than the state-of-the-art on the ImageCLEF 2009 dataset.

Android Malware Detection | NITK | [Github](#) Spring 2018

- Designed an Autoencoder model for feature compression along with CNN and RNN models in Tensorflow.
- Performed pseudo-dynamic analysis of system API call sequences to generate features.

Dynamic Memory Allocator | CMU Summer 2019

- Designed a fast and efficient general-purpose dynamic memory allocator for C programs.
- Reduced external and internal fragmentation by using segregated lists and reducing data structure overhead.

PROGRAMMING SKILLS

Languages and Scripts:	C++, C, Python, Java, C#, HTML, CSS, Javascript, MySQL
Deep Learning Frameworks:	TensorFlow, PyTorch
Tools:	Android Studio, Django, Git

ACHIEVEMENTS AND EXTRA CURRICULARS

Microsoft code.fun.do Secured 2nd position for developing a smart library management app 2016

Awards Awarded JN Tata Endowment Scholarship for pursuing higher studies 2019

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