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, Interactive Data Science

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 hubness.
- Outperformed the state-of-the-art in ZSD on 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 seamless maintenance of clusters.
- Built a UI dashboard alongside the service for interacting and reporting.

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, 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

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.

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.

${\bf Multimodal\ Medical\ Image\ Retrieval\ |\ NITK\ |\ Github}$

Spring 20

- Developed a statistical inference based model with visual topic modeling using Latent Dirichlet Allocation.
- Proposed novel early and late fusion techniques for fusing visual and textual features.
- Late fusion technique outperformed 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.

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

Awards Awarded JN Tata Endowment Scholarship for pursuing higher studies

Spring 2019

Lawn Tennis Winner at All India Inter-NIT Tennis Tournament

Spring 2018 and Spring 2019

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

Fall 2016