

# ADITYA ANANTHARAMAN

adityaan@andrew.cmu.edu • (412) 636-6221 • <https://aditya5558.github.io> • [www.linkedin.com/in/aditya1997](https://www.linkedin.com/in/aditya1997)

## EDUCATION

---

**Carnegie Mellon University (CMU), School of Computer Science** Pittsburgh, PA  
Master of Computational Data Science (MCDS) | *GPA: 4.08/4.33*  
*Relevant Coursework:* Machine Learning, Cloud Computing, Deep Learning, Neural Networks for NLP, Machine Learning for Large Datasets, Computer Systems, Interactive Data Science  
December 2020

**National Institute of Technology Karnataka, Surathkal (NITK)** Surathkal, India  
Bachelor of Technology Information Technology | *GPA: 9.54/10, Class Rank: 5/103*  
*Relevant Coursework:* Linear Algebra and Matrices, Soft Computing, Design and Analysis of Algorithms, Computer Vision, Information Retrieval, Advanced Computer Networks, Time Series Analysis  
May 2019

## EXPERIENCE

---

**Amazon** Seattle, WA  
*Applied Scientist Intern, Amazon Search*  
May 2020 - Aug 2020

- Working on using deep learning models to link context-of-use entities with products to improve search 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 by 14% in terms of mAP. Work accepted at WACV 2020.

**Microsoft** Hyderabad, India  
*Software Engineering Intern, Azure Networking*  
May 2018 - July 2018

- Developed a plug and play service for effective management, monitoring and usage of Test clusters.
- Facilitated easy locking and unlocking of clusters and devised health checks for seamless maintenance of clusters.

## SELECTED PUBLICATIONS

- 
- D Gupta, **Aditya Anantharaman**, N Mamgain, S Kamath, V Balasubramanian, C V Jawahar “A Multi-Space Approach to Zero-Shot Object Detection”, Winter Conference on Applications of Computer Vision (WACV 2020)
  - 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.

## ACADEMIC PROJECTS

---

**End-to-End 2D to 3D Video Conversion** | CMU [Github](#) | Spring 2020

- Implemented Deep-3D, a deep learning model which combines information from multiple levels to estimate depth.
- Extended Deep-3D using monocular depth estimation and segmentation masks from Mask-RCNN.
- Proposed novel early and late fusion techniques which outperformed Deep-3D on the Inria-3D movie dataset.

**Fact Extraction and Verification (FEVER shared task)** | CMU Spring 2020

- Developed an end-to-end model for FEVER to perform document retrieval, sentence selection and claim verification.
- Implemented a BERT-based model and strengthened claim verification module using Multi-Task Deep Neural Networks (MT-DNN) and Stochastic Answer Networks (SAN) in addition to multi-hop evidence reasoning.
- Proposed model with BERT-Base achieves better label accuracy than previous approaches with BERT-Large model.

**Semi-Supervised Clustering in Cellular Cryo-Electron Tomography** | CMU Spring 2020

- Proposed a Semi-supervised clustering approach with K-means Regularizer (SKR) which improves on unsupervised approaches by using a small amount of labelled data.
- Proposed approach (SKR) outperforms state-of-the-art semi-supervised method in Cryo-Electron Tomography.

## SKILLS

---

Languages and Scripts:	C++, C, Python, Java, C#, HTML, CSS, Javascript, MySQL
Deep Learning Frameworks:	TensorFlow, PyTorch
Cloud Platforms and Tools:	AWS, Azure, Google Cloud Platform, Hadoop MapReduce, Spark