

# Chaitanya Devaguptapu

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## Education

### Indian Institute of Technology, Hyderabad

*M.Tech in Computer Science*

Aug 2019 - Present

9.0/10

*Advisor:* Vineeth N Balasubramanian

### Keshav Memorial Institute of Technology, Hyderabad

*B.Tech in Electronics and Communication*

Aug 2014 - May 2018

## Research Experience

### PAIR lab, University of Toronto

*Visiting Graduate Researcher*

Jan 2021 - Present

*Advisor:* Dr.Animesh Garg

Working on problems related to data-efficient transfer learning and fine-grained video understanding

### Indian Institute of Technology (IIT), Hyderabad

*Research Assistant*

June 2018 - Present

*Advisor:* Dr.Vineeth N Balasubramanian

Conducted Research on borrowing features from data rich domains to improve object detection in domains with less annotated data. Parallely, I worked on object detection detection in low resolution Thermal Images. The research was supported by DRDO, Government of India.

## Research

- [1] **Chaitanya Devaguptapu**, Samarth Sinha, V. Balasubramanian, Animesh Garg, IONS: Input-adaptive Skip Connections for Data-Efficient Transfer Learning (under review)
- [2] **Chaitanya Devaguptapu**, Devansh Agarwal, Gaurav Mittal, Pulkit Gopalani, V. Balasubramanian; Balasubramanian, On Adversarial Robustness: A Neural Architecture Search Perspective, Workshop on Adversarial Robustness in the Real World, **ICCV-21**, also accepted at **ICLR-21** workshops (as a [Contributed Talk and Spotlight](#))
- [3] Akshay Chandra L\*, Sai Vikas Desai\*, **Chaitanya Devaguptapu\***, V. Balasubramanian. "On Initial Pools for Deep Active Learning", Preregistration Workshop at **NeurIPS 2020** (PMLR Volume 148)
- [4] **Chaitanya Devaguptapu**, Ninad Akolekar, Manuj Sharma, V. Balasubramanian., A Methodology for Transfer of Knowledge from Data-Rich Domains for Thermal Image Processing, **Indian Patent** Application No. 202011032663 (filed in Aug 2020)
- [5] **Chaitanya Devaguptapu**, Ninad Akolekar, Manuj Sharma, V. Balasubramanian. "Borrow from Anywhere: Pseudo Multi-modal Object Detection in Thermal Imagery," Workshop on Perception Beyond the Visible Spectrum, **CVPR 2019** ([Spotlight](#))

## Industry/Other Experience

### Upgrad

*Small Group Coach*

Remote

*Jun 2020 - Present*

As a Small Group Coach, I hold a 1.5 hour session every 15 days to clear the doubts of students pursuing upGrad's PG Diploma in Machine Learning, Data Science

### Udacity

*Student Mentor*

Remote

*Jan 2017 - Dec 2020*

I guide nanodegree students and review, debug, assess code files of projects submitted as a part of Deep Learning and AI Nanodegree's

### SmatSocial

*Machine Learning Intern*

Hyderabad, India

*Dec 2016 - Feb 2017*

Worked on building a system for automated emotion recognition from speech. The project was more applied in nature, we made use of several open-source NLP and Speech Processing libraries.

### Infibooks

*Data Analyst Intern*

Hyderabad, India

*Oct 2016 - Dec 2017*

Built an end-to-end data cleaning pipeline; Analysed purchase patterns of users and suggested methods to increase the sales; Automated the process of data collection.

## Industry relevant Projects

- **Object Detection in Low-Resolution Thermal Imagery** - Enhanced the performance of object detection in thermal images by increasing the resolution of 160 x 120 images using super resolution and various deep learning based image interpolation techniques. This was a joint project with DRDO, Government of India

## Service and Achievements

**Awards:** Shastri Research Student Fellowship - 2020 (one among the 8 students selected from India)

**Sub-Reviewer:** CVPR-2019, ECML-PKDD-2019, ICCV-2019, AAAI-2020, ICLR-2020, BMVC-2020, NeurIPS-2020

**Reviewer:** MFI-2020

Started an ACM student chapter at IIT-Hyderabad with my peers; Serving as a Vice chair for this chapter (Oct 2020 - June 2021) . Organised various research talks and events to promote student driven research culture at IIT-Hyderabad

Serving as a System-Admin for NVIDIA DGX system at IIT-Hyderabad

## Relevant Coursework, Certifications

**IIT-H:** CS5370 Deep Learning for Vision, CS6440 Special Topics in Machine Learning, CS5500 Reinforcement Learning

**Online:** *Udacity Nanodegree's:* Deep Learning (March, 2018); Machine Learning (August 2016); *Coursera:* Machine Learning Specialisation by University of Washington.