Chaitanya Devaguptapu

https://chaitanya.one

Github: tdchaitanya

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Education

Indian Institute of Technology, Hyderabad   Aug 2019 - Jul 2022

Masters by Research (M.Tech-RA) in Computer Science   GPA: 9.7/10

- *Advisor:* Dr. Vineeth N Balasubramanian

- *Awards:* Shastri Research Fellowship, Appreciation in Research by Department of CSE

Jawaharlal Nehru Technological University, Hyderabad   Aug 2014 - May 2018

B.Tech in Electronics and Communication

Research Experience

Fujitsu Research India   July 2022 - Present

Applied Researcher - II

Most recent works focus on Domain Adaptation on Point Cloud data (WACV-2024) and inducing structure in self-supervised vision transformers

Primarily focus is on problems and applications related to Non-Euclidean Learning. (thrust area of Fujitsu Research India)

PAIR lab, University of Toronto   Jan 2021 - July 2022

Visiting Graduate Researcher

<u>Advisor:</u> Dr.Animesh Garg

Worked on problems related to data-efficient transfer learning and finegrained video understanding

Indian Institute of Technology (IIT), Hyderabad   June 2018 - July 2022

Research Assistant

<u>Advisor:</u> Dr.Vineeth N Balasubramanian

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

Papers and Patents

[1] **Chaitanya Devaguptapu**[*], Siddharth Katageri[*], Arkadipta De[*], Prasad Kasu, Charu Sharma, Manohar Kaul: Synergizing Contrastive Learning and Optimal Transport for 3D Point Cloud Domain Adaptation, In Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision (WACV 2024)

[2] Shivangana Rawat, **Chaitanya Devaguptapu**, V. Balasubramanian, Partial Label Learning meets Active Learning: Enhancing Annotation Efficiency through Binary Questioning, International Conference on Machine Learning (ICML) Workshops, 2023.

[3] **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)

[4] **Chaitanya Devaguptapu**[*] Akshay Chandra L[*], Sai Vikas Desai[*], , V. Balasubramanian. "On Initial Pools for Deep Active Learning", Preregistration Workshop at **NeurIPS 2020** (PMLR Volume 148)

[5] **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)

[6] **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)

Pre-prints

[1] **Chaitanya Devaguptapu**, Sumukh Aithal, Yamada Moyuru, Manohar Kaul, Semantic Graph Consistency: Going Beyond Patches for Regularizing Self-Supervised Vision Transformers (under review)

[2] **Chaitanya Devaguptapu**, Samarth Sinha, Joseph K J, V. Balasubramanian, Animesh Garg, Δ-Networks for Efficient Model Patching (under review)

Industry/Other Experience

UpGrad   June-2020 - Jan 2023
Small Group Coach   *Remote*

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   Jan 2017 - Dec 2020
Student Mentor   *Remote*

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

SmatSocial   Dec 2016 - Feb 2017
Machine Learning Intern   *Hyderabad, India*

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   Oct 2016 - Dec 2017
Data Analyst Intern   *Hyderabad, India*

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.

Service and Achievements

Awards: Shastri Research Student Fellowship - 2020 (one among the 8 students selected from India), Appreciation in Research Award by Department of CSE, IIT-Hyderabad

Reviewer: NeurIPS-2022, ICLR-2022, ECCV-2022, IEEE Pattern Recognition Journal, MFI-2020, WACV-2022, NeurIPS-2023, WACV-2024, AAAI-2024

Sub-Reviewer: NeurIPS-2023, WACV-2023, CVPR-2019, ECML-PKDD-2019, ICCV-2019, AAAI-2020, ICLR-2020, BMVC-2020, NeurIPS-2020

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

Served 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.