Tarun Kalluri

Email: sskallur@eng.ucsd.edu

Google Scholar | LinkedIn | Webpage | GitHub

Research Interest

Computer Vision, Deep Learning, Statistical Learning.

Education

Fall 2019 -	PhD in Computer Science , **UC San Diego**. Area: Computer Vision & Machine learning Advisor: Dr. Manmohan Chandraker	GPA:**3.9/4.0**
2012-2016	B-Tech, **Indian Institute of Technology** (I.I.T.), Guwahati. Major in Electronics and Communication Engineering (ECE) Minor in Computer Science and Engineering (CSE) *Thesis*: Stochastic Energy Modeling in Wireless Networks [pdf]	GPA:**9.03/10.0**

Experience

Jun - Sep 2020 *Summer Research Intern, Facebook AI, Menlo Park.*

- Worked with the multimodal learning team on self-supervised representation learning from videos.

2017-2019 *Research Fellow, CVIT Lab, IIIT Hyderabad*

- Developed algorithm for learning efficient and shareable universal representations from urban scenes useful in semantic segmentation.
- Worked on a project to predict molecular force fields and particle trajectory using machine learning.

2016-17 *Data Scientist, Oracle India Pvt. Ltd., Bengaluru*

- Part of the SaaS automation team. Built an end-to-end automation tool *Spyder* to monitor client side database upgrade and down time by statistically analyzing error logs.
- *Spyder* is now widely adopted for client-side analytics across Oracle.

Publications

- Kalluri, T., Varma, G., Chandraker, M., Jawahar, C.V.. *Universal Semi-supervised semantic segmentation. ICCV, 2019.* [pdf]
- Misra, A.*, Sudhir, K.*, Kalluri, T.* , Varma, G., Anbumani, S., Chandraker, M., Jawahar, C.V.. *Semantic Segmentation Datasets for Resource Constrained Training*, In NCVPRIPG, 2019. **[Oral]**
- Pattnaik, P., Raghunathan, S., Kalluri, T., Bhimalapuram, P., Jawahar, C. V., Priyakumar, U. D. (2020). Machine Learning for Accurate Force Calculations in Molecular Dynamics Simulations. The Journal of Physical Chemistry A, 124(34), 6954-6967. [pdf]
- Kalluri, T., & Bohara, V. A. (2016, June). *Regenerative relaying in energy harvesting cognitive radio networks.* In Networks and Communications (EuCNC), 2016 European Conference on. [pdf]
- Kalluri, T., Peer, M., Bohara, V. A., & Dias, U. S. (2018). *Cooperative spectrum sharing-based relaying protocols with wireless energy harvesting cognitive user.* IET Communications, 12(7). [pdf]

Coursework

Graduate Level: Probabilistic Graphical Models, Advanced Computer Vision, Convex Optimization, Online Learning.
Undergraduate Level: Probability and Random Processes, Pattern Recognition and Machine Learning, Game Theory and Economics, Queuing Systems, Topics in Information Theory

Awards and Honors

- Ranked 116 in EAMCET entrance exam and 2055 in JEE entrance exam in 2012, out of more than 1 million students who appeared for both the exams.
- Won the SMS Classification Challenge, participated in the Video Action Recognition challenge at Samsung R&D Hackathon in Bengaluru. Also participated in Microsoft DeepLearning hackathon on Author Identification at Hyderabad in Dec 2017.
- Selected to participate in the Machine Learning Summer School (MLSS) conducted at IIIT-Hyderabad in July 2018 focusing on advances in modern AI. Awarded cash prize for standing among the best performing participants.
- Active Participant in various online competitions in Deep Learning including Kaggle, and active contributor to open source research.
- Highly proficient in Python, C++, bash scripting and deep learning packages like Tensorflow, PyTorch and Keras.

Professional Service

- **Member**: PhD admissions student committee at UCSD, 2020
- **Reviewer**: IROS, 2020

Talks

1. Domain adaptation for urban scene understanding, *Augmented Reality and Self-Driving workshop*, Qualcomm San Diego, June 2020.
2. Cross Task Adaptation for semantic segmentation, *Pixel Cafe*, UCSD, May 2020.
3. Universal Semi-supervised Semantic Segmentation, *Pixel Cafe*, UCSD, Nov 2019.