Tarun Kalluri

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Education

2019 -	PhD, CSE , UC San Diego. Area: Vision and learning Advisor: Dr. Manmohan Chandraker
2012-16	B-Tech, ECE, , Indian Institute of Technology (I.I.T.), Guwahati. **9.03/10.0** *Minor in Computer Science and Engineering (CSE)* *Thesis* [pdf]: Stochastic Energy Modeling in Wireless Networks

Experience

2017-2019	*Research Assistant, CVIT Lab, IIIT Hyderabad* Worked on application level problems in deep learning and computer vision.
2016-17	*Data Scientist, Oracle India Pvt. Ltd., Bengaluru* Worked with SaaS Q&A team. Built an end-to-end automation tool *Spyder* to monitor client side database upgrade and down time by statistically analyzing error logs.

Research Projects

Sep '17 - Present — Universal Semi-supervised Semantic Segmentation
Guide: Dr. Manmohan Chandraker, UCSD and Dr. CV Jawahar, IIIT-Hyderabad
Project involved learning segmentation models by aggregating knowledge from multiple driving datasets with special focus on improving the state-of-the art performance of autonomous driving on Indian roads.

Oct '17 - Present — Physical Force Field Approximation Using Deep Learning [Poster]
Guide: Dr. CV Jawahar ,IIIT-Hyderabad
This project aims to automatically calculate and calibrate inter molecular forces in regular objects using data-driven deep learning techniques.

Publications

JRNL01 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]

CONF03 Kalluri, T., Varma, G., Chandraker, M., Jawahar, C.V.. Universal Semi-supervised semantic segmentation. *ICCV, 2019.* [arxiv]

CONF02 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]

CONF01 Peer, M., Kalluri, T., Bohara, V. A., da Costa, D. B., & Dias, U. S. (2017, April). A time-splitting cooperative spectrum sharing amplify-and-forward relaying protocol with energy harvesting cognitive user. In Wireless and Microwave Technology Conference (WAMICON), 2017 IEEE 18th (pp. 1-6). IEEE. [pdf]

Relevant Courses | Detailed Curriculum

- Pattern Recognition and Machine Learning*
- Computer Vision*
- Image Processing*
- Probability and Random Processes
- Game Theory and Economics*
- Deep Learning for Computer Vision (MOOC, CS231 by Stanford Univ.)
- Data Structures and Algorithms
- Digital Signal Processing*
- Queuing Systems*
- Topics in Information Theory*
- Linear Algebra(Mathematics I)*
- Natural Language Processing (MOOC, CS224 by Stanford Univ.)

*Obtained AA/AS

Awards and Honors

- 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.
- 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.