# TARUN KALLURI

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E-Mail | Webpage | Google Scholar | LinkedIn | GitHub

## RESEARCH INTERESTS

- **Label Efficient Learning:** Self/semi/weakly-supervised learning and learning with noisy labels.
- **Domain Adaptation:** Unsupervised domain adaptation, Transfer Learning.
- **Trustworthy ML:** Fairness, interpretability and robustness in AI.

## EDUCATION

**Ph.D. Student in Computer Science, UC San Diego** La Jolla, CA, USA *Sep.2019 - Present*

- **Overall GPA:** 3.9/4.0
- **Selected Courses:** Probabilistic Graphical Models, Computer Vision, Trustworthy Machine Learning, Online Learning, Probabilistic Unsupervised Learning, Convex Optimization.

**B.Tech. in Indian Institute of Technology, Guwahati** Guwahati, India *July.2012 - May.2016*

- Major in Electronics and Communication (ECE), Minor in CSE.
- **Overall GPA:** 9.03/10
- **Selected Courses:** Probability and Random Processes, Pattern Recognition and Machine Learning, Game Theory and Economics, Queuing Systems, Information Theory.

## PUBLICATIONS

1. **MemSAC: Memory Augmented Sample Consistency for Large-Scale Domain Adaptation**. **In Submission, 2021.**
2. **FLAVR: Flow-Agnostic Video Representations for Fast Frame Interpolation**. **Tarun Kalluri**, Deepak Pathak, Manmohan Chandraker, Du Tran. **arxiv, 2021.**
3. **Instance Level Affinity Based Transfer for Unsupervised Domain Adaptation** Astuti Sharma, **Tarun Kalluri**, Manmohan Chandraker. **CVPR, 2021.**
4. **Universal Semi-supervised Semantic Segmentation**. **Tarun Kalluri**, Girish Varma, Manmohan Chandraker, Jawahar, C.V. **ICCV, 2019.**
5. **Semantic Segmentation Datasets for Resource Constrained Training**. **Tarun Kalluri** , Ashutosh Misra*, Sudhir Kumar, Girish Varma, Anbumani Subramanian, Manmohan Chandraker, Jawahar, C.V. In **NCVPRIPG 2019**. [Oral]
6. **Machine Learning for Accurate Force Calculations in Molecular Dynamics Simulations**. Punyaslok Pattnaik, Shampa Raghunathan, **Tarun Kalluri**, Prabhakar Bhimalapuram, Jawahar, C. V., Deva Priyakumar. **The Journal of Physical Chemistry A, 2020**.

## RESEARCH & INDUSTRY EXPERIENCE

- **Facebook AI Research**, Menlo Park, CA, USA *Jun. 2020 - Sep. 2020*
  **Video Frame Interpolation**
  Research Intern - Du Tran, Deepak Pathak
  - Fast and efficient video frame interpolation technique, without requiring any flow or depth information.

- **Applied Research Labs**, IIIT Hyderabad, India *Sep. 2017 - Aug. 2019*
  **Semi-supervised Semantic Segmentation**
  Research Student - Prof. CV Jawahar
  - Semi-supervised learning for semantic segmentation on diverse datasets, like road scenes from India and Europe using a novel feature alignment module.
- **Oracle India Pvt. Ltd.**, Bengaluru, India *July. 2016 - Aug. 2017*
  **Applied Data Scientist - SaaS Provisioning**
  - Server technology team, with special focus on fusion application provisioning.
  - Developed *Spyder*, an automation tool for diagnosis of large scale cloud instance provisioning, upgrade and patching.

## TALKS & PRESENTATIONS

- **Domain adaptation for urban scene understanding**, *Augmented Reality and Self-Driving workshop*, Qualcomm San Diego, June 2020.
- **Domain adaptation for urban scene understanding**, *SIAM Conference on Computational Science and Engineering*, March 2021.

## ACADEMIC SERVICE

- Conference reviewer for IROS'20.

## HONORS & AWARDS

- Recipient of IPE PhD fellowship (link) 2020-21 for contribution towards practical ethics in AI. *2021*
- Ranked 116 (top 0.1%) in EAMCET entrance exam and 2055 (top 0.4%) in JEE entrance exam. *May 2012*
- Winner of SMS Classification Challenge, Video Action Recognition challenge at Samsung R&D Hackathon. *Nov. 2017*

## SKILLS

- **Programming Language:** MATLAB, C++, Python, Verilog, VHDL.
- **Software and Platforms:** TensorFlow, PyTorch, OpenCV.