



IARPA Video LINCS Program

Yu-Wing Tai

Yaoqing Yang

SouYoung Jin

Yujun Yan

Dartmouth College

Yu-Wing Tai, Associate Professor@Dartmouth (2023 ~ now)

Past Experience:

- Senior research director at Kuaishou Technology in China (2020 to 2023)
- Research director at Tencent (2017 to 2020)
- Principal researcher at SenseTime (2015-2016)
- Associate professor at KAIST, Korea (2009-2014)

Highlight:

- Have rich experiences in both Academic and Industry
- Co-authored more than 100 papers in areas covering low-level vision, image/video editing, segmentation, 3D reconstruction, object detection, human pose estimation, and video analysis

Personal Homepage: <https://yuwingtai.github.io/>

Google Scholar: <https://scholar.google.com/citations?hl=en&user=nFhLmFkAAAAJ>

Yaoqing Yang, Assistant Professor@Dartmouth (2023 ~ now)

Past Experience:

- Postdoctoral researcher at UC Berkeley (2019-2022)
- PhD, ECE, CMU, 2019

Highlight:

- Experts in improving machine learning models' generalizability, transparency, and robustness.
- Two papers on 3D point clouds have got more than 1500 citations in total.
- Current focus is to diagnose failures of machine learning models using geometric features from high dimensions, such as loss landscapes, spectral densities of weight matrices, and decision boundaries.

Personal Homepage: <https://sites.google.com/site/yangyaoqingcmu/>

Google Scholar: <https://scholar.google.com/citations?user=LYvugWgAAAAJ>

SouYoung Jin, Assistant Professor@Dartmouth (2023 ~ now)

Past Experience:

- Postdoctoral researcher at MIT (2020-2022)
- PhD, CS, UMass Amherst, 2020

Highlight:

- Experts in video understanding.
- Has contributed to various research projects involving object detection, tracking, re-identification, and deep learning
- Her PhD work was funded by IARPA.

Personal Homepage: <https://souyoungjin.github.io/>

Google Scholar: https://scholar.google.com/citations?user=_B-_CzYAAAAJ&hl=en

Yujun Yan, Assistant Professor@Dartmouth (2023 ~ now)

Past Experience:

- PhD, CS, University of Michigan, Ann Arbor, 2022

Highlight:

- Specializing in graph learning, her research delves into the expressiveness, generalizability, and explainability of graph neural networks.
- Two well-received papers on learning heterophily graphs.
- Actively engaged in research aimed at addressing out-of-distribution shifts in graphs
- Utilize her expertise in graph learning to extract static and dynamic person signature for person re-identification.

Personal Homepage: <https://sites.google.com/umich.edu/yujunyan/home>

Google Scholar: <https://scholar.google.com/citations?user=5TQUP58AAAAJ>

Core Competencies

Object Detection: domain adaptation, universal object detector, few-shot object detection

Tracking: video object/instance segmentation, multi-objects tracking, efficient algorithms

Re-Identification: multi-view consistency checking, person re-identification in videos

Deep Learning: spatial reasoning neural networks, multiple modalities LLM, graph neural networks

Open Set Classification: segmentation/object detection in open world settings, non-robust features and uncertainty quantification, zero-shot classification, out-of-distribution generalization

*Further Details can be found in **Capability Statement***