Kanchana Ranasinghe

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Education

Stony Brook University, NY, USA — Aug 2021 - Present
PhD in Computer Science; GPA: 3.94 / 4.00

University of Moratuwa, Sri Lanka — Dec 2015 - Jan 2020
BSc in Engineering; GPA: 3.95/4.20; Awarded Most Outstanding Graduand of the Year

Research Experience

Meta, NYC, USA - *Research Scientist Intern* — May 2023 - Aug 2023
- Spatial reasoning in multi-modal large language models
- Motion awareness in video-language models

Apple, Cupertino, USA - *Machine Learning Research Intern* — May 2022 - Sep 2022
- Multi-modal self-supervised representation learning (ICCV '23)
- Interpretability and robustness of vision language models

MBZUAI, Abu Dhabi, UAE - *Research Assistant* — Nov 2020 - Aug 2021
- Representation learning: contrastive losses, self-supervised video analysis (ICCV '21, CVPR '22)
- Interpretability, robustness, and adversarial attacks for vision transformers (NeurIPS '21, ICLR '22)
- Generative modelling for multi-modal output spaces (ICLR '21)

VeracityAI, Colombo, Sri Lanka
Machine Learning Engineer — Feb 2020 - Oct 2020
Associate Data Scientist — Jan 2019 - Jan 2020
- Leading team of three associate data scientists for vehicle damage detection project

FiveAI, Cambridge, UK - *Research Intern* — June 2018 - Dec 2018
- Perception team of self-driving startup
- 3D orientation estimation: improve occluded object handling in videos with synthetic data

Selected Publications

Language-based Action Concept Spaces Improve Video SSL — NeurIPS, 2023
Kanchana Ranasinghe, Michael Ryoo

Perceptual Grouping in Contrastive Vision-Language Models — ICCV, 2023
K Ranasinghe, B McKinzie, S Ravi, Y Yang, A Toshev, J Shlens

Self-supervised Video Transformers — CVPR, 2022 (oral)
K Ranasinghe, M Naseer, S Khan, F Khan, M Ryoo

On Improving Adversarial Transferability of Vision Transformers — ICLR, 2022 (spotlight)
M Naseer, **K Ranasinghe**, S Khan, F Khan, F Porikli

Intriguing Properties of Vision Transformers — NeurIPS, 2021 (spotlight)
M Naseer, **K Ranasinghe**, S Khan, M Hayat, F Khan, M Yang

Orthogonal Projection Loss — ICCV, 2021
K Ranasinghe, M Naseer, M Hayat, S Khan, F Khan

Conditional Generative Modeling via Learning the Latent Space — ICLR, 2021
S. Ramasinghe, **K Ranasinghe**, Salman Khan, Nick Barnes, and Stephen Gould

Bipartite Conditional Random Fields for Panoptic Segmentation — BMVC, 2020 (oral)
S. Jayasumana, **K Ranasinghe**, M. Jayawardhana, S. Liyanaarachchi and H. Ranasinghe

Professional Activities

Conference Peer Reviewer: CVPR, ICCV, ECCV, NeurIPS, ICML, BMVC, ICRA — 2020 - 2023

Teaching Assistant: Stony Brook University, Computer Science Department — 2021 - 2022