Kanchana Ranasinghe

kranasinghe@cs.stonybrook.edu | http://kahnchana.github.io

Education

Stony Brook University, NY, USA — Aug 2021 - Present
PhD in Computer Science

University of Moratuwa, Sri Lanka — Dec 2015 - Jan 2020
BSc in Engineering
Senior Thesis Title: *"Realtime Multi-Object Tracking and Pixelwise Segmentation"*

Research Experience

Google Research, NYC, USA — March 2024 - Present
Student Researcher

Meta AI Research, NYC, USA — May 2023 - Dec 2023
Research Scientist Intern

Apple, Cupertino, USA — May 2022 - Sep 2022
Machine Learning Research Intern

MBZUAI, Abu Dhabi, UAE — Nov 2020 - Aug 2021
Research Assistant

VeracityAI, Colombo, Sri Lanka — Jan 2019 - Oct 2020
Machine Learning Engineer

FiveAI, Cambridge, UK — June 2018 - Dec 2018
Research Intern

University of Moratuwa, Sri Lanka — July 2016 - May 2018
Vision Group Student Researcher

Selected Awards

Outstanding Demo Award — CVPR 2023
Burgert, Ranasinghe, Li, Ryoo, *"Diffusion Illusions: Hiding Images in Plain Sight"*

Most Outstanding Graduate of the Year — University of Moratuwa, Sri Lanka
Class of 2020 at University of Moratuwa

Selected Publications

Learning to Localize Objects Improves Spatial Reasoning in Visual-LLMs — CVPR, 2024
K Ranasinghe, K Ranasinghe, SN Shukla, O Poursaeed, MS Ryoo, TY Lin

Language-based Action Concept Spaces Improve Video SSL — NeurIPS, 2023
K Ranasinghe, MS Ryoo

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

Diffusion Illusions: Hiding Images in Plain Sight — CVPR best demo, 2023
R Burgert, K Ranasinghe, X Li, MS Ryoo

Peekaboo: Text to Image Diffusion Models are Zero-Shot Segmentors — CVPR workshop, 2023
R Burgert, K Ranasinghe, X Li, MS Ryoo

Self-supervised Video Transformers — CVPR, 2022 (oral)
K Ranasinghe, M Naseer, S Khan, F Khan, MS 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, S Khan, N Barnes, S Gould

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

Preprints

Understanding Long Videos in One Multimodal Language Model Pass 2024
K Ranasinghe, X Li, K Kahatapitiya, M S Ryoo

Language Repository for Long Video Understanding 2024
K Kahatapitiya, K Ranasinghe, J Park, MS Ryoo

Other Awards & Honors

Graduate Fellowship - Stony Brook University, NY, USA 2022
National Merit Scholarship - Ranked 13th in Sri Lanka at GCE A/L Examination 2014
Represented Sri Lanka - International Mathematical Olympiad (IMO), Columbia 2013

Academic Service

Reviewing
- Conference reviewer: CVPR, ICCV, ECCV, NeurIPS, ICLR, ICML, ICRA
- Journal reviewer: IEEE Transactions on Circuits and Systems for Video Technology

Mentoring
- Mentor for undergraduate computer science students at Women in Engineering in Sri Lanka
- Mentor for machine learning competition teams at University of Moratuwa, Sri Lanka
- Mentoring and supporting undergraduates from University of Moratuwa, Sri Lanka in computer vision research projects and academic writing

Teaching

Stony Brook University, NY, USA
- Teaching assistant for CSE 101 course on Introduction to Digital Intelligence
- Teaching assistant for CSE 215 course on Foundations of Computer Science course
- Supporting for graduate level Computer Vision Seminar CSE 656

University of Moratuwa, Sri Lanka
- Conducting sessions at undergraduate level Introduction to Computer Vision course
- Supporting for undergraduate level Computer Vision seminar