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RESEARCH INTERESTS

Computer Vision, Deep Learning, Reinforcement Learning

My interests lie in the scope of reducing supervision in deep learning systems. Along these lines, my research includes few-shot target re-identification, weakly supervised learning from videos and improving sample efficiency in deep reinforcement learning algorithms.

EDUCATION

University of California, Riverside, CA, USA

Sept 2018 - Present

PhD, Electrical and Computer Engineering

Advisor: Dr. Amit K. Roy-Chowdhury

GPA: 3.97/4.0

Jadavpur University, Kolkata, WB, India

Aug. 2014 - June 2018

Bachelor of Engineering, Electronics and Telecommunications Engineering

Advisor: Dr. Ananda S. Chowdhury

GPA: 9.37/10.00

EXPERIENCE

Research intern

June 2020 - Sep. 2020

Mitsubishi Electric Research Lab (MERL)

Cambridge, MA, USA

Advisor: Dr. Jeroen van Baar

• **Transfer reinforcement learning**

Graduate Student Researcher

April 2019 - Present

Video Computing Group

University of California, Riverside

Advisor: Dr. Amit K. Roy-Chowdhury

• **Reducing supervision in visual recognition models**

– Cross-domain adaptation of policies using imitation learning

– Few-shot/semi-supervised learning of re-identification models

WISE Research Intern

May 2017 - July 2017

DAAD:German Academic Exchange Service

University of Hildesheim

Advisor: Dr. Dr. Lars Schmidt-Thieme

• **Channel masking for multivariate time series shapelets:** An algorithm for classifying multivariate time series via a shapelet learning scheme using channel masks to automatically discount noisy channels.

Undergraduate Student Researcher

Aug. 2017 - June 2018

Imaging, Vision & Pattern Recognition Group

Jadavpur University

Advisor: Dr. Ananda S. Chowdhury

• **Segmentation of aortic vessels:** A level set based technique for identification and segmentation of aortic media-adventitia from fetal ultrasound images

PUBLICATIONS

• **Raychaudhuri, D.S.** and Roy-Chowdhury, A.K., 2020. Exploiting Temporal Coherence for Self-Supervised One-shot Video Re-identification. *European Conference on Computer Vision 2020*

• Ahmed, S.A.*, **Raychaudhuri, D.S.***, Paul, S.*, Oymak, S. and Roy-Chowdhury, A.K., 2020. Unsupervised Multi-source Domain Adaptation Without Access to Source Data. *Under review* (* denotes equal contribution)

• Nag, S.*, **Raychaudhuri, D.S.***, Paul, S. and Roy-Chowdhury, A.K., 2020. Learning Few-Shot Open-set Classifiers using Exemplar Reconstruction. *Under review* (* denotes equal contribution)

- Wang, X., Paul, S., **Raychaudhuri, D.S.**, Liu, M., Wang, Y. and Roy-Chowdhury, A.K., 2020. Learning Person Re-identification Models from Videos with Weak Supervision. *Under review*

- **Raychaudhuri, D.S.**, Grabocka, J. and Schmidt-Thieme, L., 2017. Channel masking for multivariate time series shapelets. arXiv preprint arXiv:1711.00812.

HONORS & AWARDS

- **Dean's Distinguished Fellowship Award**, University of California, Riverside

- **DAAD-WISE Fellowship Award**, Research intern

GRADUATE COURSEWORK

- Probabilistic Graphical Models • Introduction to Deep Learning • Advanced Computer Vision • Machine Learning • Information Theory • Stochastic Processes • State & Parameter Estimation Theory • Convex Optimization • Mathematical Methods in EE • Sparse Signal Processing

COMPUTER SKILLS

Python, Java, C, PyTorch, Matlab, OpenCV, sklearn