Dripta S. Raychaudhuri

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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 efficency 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 - Present
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*

• 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