

Sudipta Paul

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INTRODUCTION

- Last year Ph.D. student, motivated to work in Machine Learning, Deep Learning, and Computer Vision related fields. I enjoy working on challenging problems that involve delving into structured and unstructured data, implementing or improving state-of-the-art technologies, and eventually deploying them in real-world settings.

EDUCATION

University of California, Riverside, CA, USA Ph.D. in Electrical and Computer Engineering Advisor: Dr. Amit K. Roy-Chowdhury	Sept. 2017 – Present
Bangladesh University of Engineering and Technology , Dhaka, Bangladesh B.Sc. in Electrical and Electronic Engineering Advisor: Dr. SM Mahbubur Rahman	Feb 2011 – March 2016

RESEARCH EXPERIENCE

Research Intern Mitsubishi Electric Research Laboratories, Cambridge, Massachusetts, USA Mentor: Dr. Anoop Cherian <ul style="list-style-type: none">• Embodied AI (Audio-visual-language navigation)	June 2021 – Sept. 2021
Machine Learning Intern Mayachitra, Inc., Santa Barbara, CA, USA Mentor: Dr. Shivkumar Chandrasekaran, Dr. Carlos Torres <ul style="list-style-type: none">• Pairwise activity analysis	June 2019 – Sept. 2019
Graduate Student Researcher Video Computing Group, UC Riverside, CA, USA Advisor: Dr. Amit K. Roy-Chowdhury <ul style="list-style-type: none">• Multimodal learning (vision and language), robustness in active learning	Sept. 2017 – Present

TEACHING EXPERIENCE

Lecturer Electrical and Electronic Engineering Daffodil International University, Dhaka, Bangladesh	June 2016 – Aug. 2017
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TECHNICAL SKILL

- Machine Learning (ML), Deep Learning (DL), Computer Vision (CV), Multimodal Vision and Language
- **Programming Skills:** Python, MATLAB, SQL, C
- **Deep Learning Libraries:** PyTorch, TensorFlow, Keras
- **Others:** LaTeX, MS Office, OpenCV, Scikit-learn, CVAT, Docker

PUBLICATIONS

- **Sudipta Paul**, Niluthpol Chowdhury Mithun, Amit K Roy-Chowdhury, "Text-based Localization of moments in a Video Corpus", *IEEE Transactions on Image Processing (T-IP)*, 2021
- Shasha Li, Shitong Zhu, **Sudipta Paul**, Amit K Roy-Chowdhury, Chengyu Song, Srikanth Krishnamurthy, Ananthram Swami, Kevin S Chan, "Connecting the Dots: Detecting Adversarial Perturbations Using Context Inconsistency", *European Conference on Computer Vision (ECCV)*, 2020
- Ryan Rivas, **Sudipta Paul**, Vagelis Hristidis, Evangelos E Papalexakis, Amit K Roy-Chowdhury, "Task-agnostic representation learning of multimodal twitter data for downstream applications", *Journal of Big Data*, 2022
- **Sudipta Paul**, Carlos Torres, Shivkumar Chandrasekaran, Amit K Roy-Chowdhury, "Complex Pairwise Activity Analysis Via Instance Level Evolution Reasoning", *ICASSP 2020*
- **Sudipta Paul**, Nurani Saoda, SM Mahbubur Rahman, Dimitrios Hatzinakos, "Mutual information-based selection of audiovisual affective features to predict instantaneous emotional state", *19th International Conference on Computer and Information Technology (ICCIT)*, Dhaka, 2016
- **Sudipta Paul**, Niluthpol Chowdhury Mithun, Amit K Roy-Chowdhury, "Text-based Temporal Localization of Novel Events", Under review
- **Sudipta Paul**, Anoop Cherian, Amit K Roy-Chowdhury, "AVLEN: Audio-Visual-Language Embodied Navigation in 3D Environments", Under review
- Ghazal Mazaheri*, **Sudipta Paul***, Subarna Tripathi, Evangelos E Papalexakis, Amit K Roy-Chowdhury, "Learning Robust Image-Text Retrieval Models from Noisy Captions", Under review
- **Sudipta Paul**, Shivkumar Chandrasekaran, B.S. Manjunath, Amit K Roy-Chowdhury, "Exploiting Context for Robustness to Label Noise in Active Learning", ArXiv Preprint

HONORS & AWARDS

- **Best Paper Award**, *ICCIT*, Dhaka, 2016
- **Dean's Distinguished Fellowship**, University of California, Riverside
- **Best Project Award**, Tensilica Xtensa Embedded DSP Design Contest, India 2016

GRADUATE COURSES

- Advanced Computer Vision
- Pattern Recognition
- Intermediate Data Structures and Algorithms
- Stochastic Processes
- State and Parameter Estimation Theory
- Convex Optimization
- Math Methods for EE
- Data Mining Techniques
- Information Theory

PROFESSIONAL SERVICES

- **Member:** IEEE, CVF
- **Journal Reviews:** IEEE Trans. on Pattern Analysis and Machine Intelligence, IEEE Trans. on Image Processing, IEEE Trans. on Circuits and Systems for Video Technology
- **Conference Reviews:** IEEE/CVF Conf. Computer Vision & Pattern Recognition (CVPR), European Conf. Computer Vision (ECCV), IEEE Int. Conf. Image Processing (ICIP), IEEE Int. Conf. on Acoustics, Speech, and Signal Processing