Sanjoy Kundu

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Profile Summary

- 🔖 About 3.5 years research experience in **computer vision** and **deep learning**
- 🔖 Areas of interests are but not limited to multi-modal learning, scene graph generation, visual question answering, video understanding, image and video captioning etc.

Education

Fall 2023 – current	🔖 **Ph.D., Auburn University, Auburn, Alabama** in Computer Science and Software Engineering
Spr 2020 – Summ 2023	🔖 **Ph.D., Oklahoma State University, Stillwater, Oklahoma** in Computer Science (Transferred)
2016 – 2019	🔖 **M.S., Stamford University, Bangladesh** in Computer Science and Engineering
2009 – 2013	🔖 **B.S., Khulna University of Engineering and Technology** in Electronics and Communication Engineering

Research Publications

1 S. N. Aakur, S. Kundu, and S. Trehan, "Discovering Novel Actions in an Open World with Object-Grounded Visual Commonsense Reasoning," *arXiv*, vol. arXiv:2305.16602, 2023 [In review]. 🔗 URL: https://arxiv.org/abs/2305.16602.

2 S. Kundu and S. N. Aakur, "IS-GGT : Iterative Scene Graph Generation With Generative Transformers," *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2023*, vol. pp. 6292-6301, 2023. 🔗 URL: https://openaccess.thecvf.com/content/CVPR2023/html/Kundu_IS-GGT_Iterative_Scene_Graph_Generation_With_Generative_Transformers_CVPR_2023_paper.html.

3 S. N. Aakur, S. Kundu, and N. Gunti, "Knowledge Guided Learning: Open World Egocentric Action Recognition with Zero Supervision," *Pattern Recognition Letter*, vol. 156, 38-45, 2022. 🔗 URL: https://www.sciencedirect.com/science/article/abs/pii/S0167865522000733.

4 S. Kundu, N. Gunti, B. Hendrickson, M. S, and S. Aakur, "Benchmark and Evaluation of Low Resource Object Detection in Biomedical Images," *2020 IEEE Applied Imagery Pattern Recognition Workshop (AIPR)*, 2020. 🔗 DOI: 10.1109/AIPR50011.2020.9425104.

5 A. Mallik and S. Kundu, "Design of a novel dual-band microstrip patch antenna operating at 2.45 GHz and 2.84 GHz with practical implementation," *16th Int'l Conf. Computer and Information Technology*, 2014. 🔗 URL: https://ieeexplore.ieee.org/abstract/document/6997297.

6 A. Mallik, S. Kundu, and M. O. Goni, "Gain and SAR improvement of a conventional patch antenna using a novel Pi-shaped dng metamaterial," *2013 International Conference on Electrical Information and Communication Technology (EICT)*, 2014. 🔗 URL: https://ieeexplore.ieee.org/abstract/document/6572646.

7 A. Mallik, S. Kundu, and M. O. Goni, "Design of a novel two-rectangular U-shaped double negative metamaterial," *2013 International Conference on Informatics, Electronics and Vision (ICIEV)*, 2013. 🔗 URL: https://ieeexplore.ieee.org/abstract/document/6572646.

⑧ A. Mallik, S. Kundu, and M. A. Rahman, "An FPGA-Based Semi-Automated Traffic Control System Using Verilog HDL," *Proceeding of the International Conference on Electrical, Computer and Telecommunication Engineering (ICECTE2012)*, 2012. 🔗 URL: https://arxiv.org/abs/2303.04716.

Skills

Coding	🔖	**Python** (Advanced), C (Intermediate), Java (Intermediate), CSS (Intermediate)
ML/DL tools	🔖	**Pytorch**, Tensorflow, Keras Open-Cv, Scikit-learn, Pandas, Numpy, SciPy, Matplotlib, NetworkX, etc.
Misc.	🔖	Academic research, teaching

Voluntary Activities

	🔖	**Mentored** graduate students in Oklahoma State University and Auburn University
Summer 2022	🔖	**Mentored** one under-graduate student as part of the **REU program**
	🔖	Worked as a **reviewer** for **NeuRIPS 2023, CVPR 2022, ACM Multimedia 2021, RA-L, ICPR 2022, ICMLA 2023** etc.

Industry Experience

Nov 2016- Dec 2020	🔖	Engineer, Network Operation Center, Fiber@Home 1. Experienced with Optical fiber network, 2. Working experience with Cisco Switch, Router, Huawei switch, Router, OLT, Juniper Switch, Router etc.
Apr 2015 – Jul 2015	🔖	CMS Specialist, Enroute Co. Ltd 1. Worked as a Telecom Engineer for a local Telecom operator in Bangladesh

Awards

2021	🔖	Received Graduate College **Robberson Summer 2021 Research and Creative Activity Grant** from Graduate College, Oklahoma State University
2000–2009	🔖	Obtained government and non-government scholarships for good academic performance
2003	🔖	Divisional and Institutional awards for creative writing

Leadership Experience

2022	🔖	Served as a **Sports Secretary** for Bangladesh Student Association, Oklahoma State University, Stillwater, OK