Sagnik Majumder

■ sagnik@cs.utexas.edu | • Webpage | • GitHub

EDUCATION

DECEMBER 2025 University of Texas at Austin (UT)-Austin, Texas, United States

Doctor of Philosophy and Master of Science in Computer Science; GPA: 3.96/4.0

JULY 2018 Birla Institute of Technology and Science (BITS)-Pilani, Pilani, Rajasthan, India

Bachelor of Engineering (Hons.) in Electronics and Instrumentation
Thesis: "Neural Architecture Meta-learning via Reinforcement" | Advisor: Prof. V. RAMESH

GPA: 9.55/10, Distinction and ranked 2^{nd} out of 100 students

INTERNSHIPS AND RESEARCH

JAN 2020 - present	Research assistant at UT Austin Advisor - Prof. Kristen Grauman
DEC 2022 - DEC 2024	Visiting researcher at Meta Al Manager - Prof. Kristen Grauman
JUNE 2022 - DEC 2022	Research scientist intern at Reality Labs Research, Meta Manager - Dr. Vamsi Krishna Ithapu
Jan 2018 - May 2019	Research assistant at Goethe University Advisor - Prof. Visvanathan Ramesh
MAY 2017 - May 2019	Research intern at Frankfurt Institute for Advanced Studies (FIAS) Advisor - Prof. Christoph Malsburg

PEER-REVIEWED PUBLICATIONS AND SUBMISSIONS

- Sagnik Majumder, Tushar Nagarajan, Ziad Al-Halah, Kristen Grauman. "Switch-a-View: View Selection Learned from Unlabeled In-the-wild Videos". In submission. [arXiv], [Project Page].
- Sagnik Majumder, Tushar Nagarajan, Ziad Al-Halah, Reina Pradhan, Kristen Grauman. "Which Viewpoint Shows it Best? Language for Weakly Supervising View Selection in Multi-view Instructional Videos". CVPR 2025 (Highlight). [arXiv], [Project Page].
- Arjun Somayazulu, **Sagnik Majumder**, Changan Chen, Kristen Grauman. "ActiveRIR: Active Audio-Visual Exploration for Acoustic Environment Modeling". **IROS 2024 (Oral)**. [arXiv], [Project Page].
- Sagnik Majumder, Ziad Al-Halah, Kristen Grauman. "Learning Spatial Features from Audio-Visual Correspondence in Egocentric Videos". CVPR 2024. [arXiv], [Project Page].
- Kristen Grauman, ..., Sagnik Majumder, ..., Michael Wray. "Ego-Exo4D: Understanding Skilled Human Activity from First- and Third-Person Perspectives". CVPR 2024 (Oral). [arXiv], [Project Page].
- Sagnik Majumder, Hao Jiang, Pierre Moulon, Ethan Henderson, Paul Calamia, Kristen Grauman*, Vamsi Krishna Ithapu*. "Chat2Map: Efficient Scene Mapping from Multi-Ego Conversations". CVPR 2023. [arXiv], [Project Page].
- Sagnik Majumder, Changan Chen*, Ziad Al-Halah*, Kristen Grauman. "Few-Shot Audio-Visual Learning of Environment Acoustics". NeurIPS 2022. [arXiv], [Project Page].

- Sagnik Majumder, Kristen Grauman. "Active Audio-Visual Separation of Dynamic Sound Sources". ECCV 2022. [arXiv], [Project Page].
- Sagnik Majumder, Ziad Al-Halah, Kristen Grauman. "Move2Hear: Active Audio-Visual Source Separation". ICCV 2021. [arXiv], [Project Page].
- Changan Chen, **Sagnik Majumder**, Ziad Al-Halah, Ruohan Gao, Santhosh K. Ramakrishnan, Kristen Grauman. "Learning to Set Waypoints for Audio-Visual Navigation". **ICLR 2021**. [Publication], [Project Page].
- Sagnik Majumder, Chinmoy Samant, Greg Durrett. "Model Agnostic Answer Reranking System for Adversarial Question Answering". EACL 2021 Student Research Workshop. [Publication].
- Martin Mundt, **Sagnik Majumder**, Sreenivas Narasimha Murali, Panagiotis Panetsos, Visvanathan Ramesh. "Meta-learning Convolutional Neural Architectures for Multi-target Concrete Defect Classification with the Concrete Defect Bridge IMage Dataset". **CVPR 2019**. [Publication], [Codebase].

INVITED TALKS

EgoVis at CVPR 2024	Learning Spatial Features from Audio-Visual Correspondence in Egocentric Videos
Sight and Sound at CVPR 2024	Learning Spatial Features from Audio-Visual Correspondence in
	Egocentric Videos
Sight and Sound at CVPR 2023	Chat2Map: Efficient Scene Mapping from Multi-Ego Conversations
NSA Lab at JHU	Efficiently understanding 3D scenes using sight and sound
ECCV AV4D workshop 2022	Active Audio-Visual Separation of Dynammic Sound Sources
Sight and Sound at CVPR 2022	Active Audio-Visual Separation of Dynammic Sound Sources
Embodied AI seminar at Meta AI	Active Audio-Visual Separation of Dynammic Sound Sources

PROFESSIONAL SERVICE

Workshop co-organizer: CVPR Embodied AI workshop 2022-23

Reviewer: CVPR; ECCV; ICCV; NeurIPS; ICML; AAAI; RA-L; ICRA; BMVC; TNNLS

ACADEMIC HONORS AND ACHIEVEMENTS

July 2024	Received the Professional Development Award from UT Austin for presenting
	my research at CVPR 2024
JULY 2023	Received the Professional Development Award from UT Austin for presenting
	my research at CVPR 2023
November 2020	TOEFL iBT: 118 (READING: 29, LISTENING: 30 SPEAKING: 29, WRITING: 30)
July 2018	GRE: 334 (QUANTITATIVE: 170, VERBAL: 164, AWA: 5.0)
Jan 2016 - Jun 2018	Received academic excellence scholarship from BITS Pilani for 5
	consecutive semesters
AUGUST 2017	Offered full-time role as machine learning engineer (software development) by
	Goldman Sachs India
March 2017	Secured 2^{nd} place in paper presentation at APOGEE, BITS Pilani technical festival
DECEMBER 2016	Received DAAD WISE scholarship 2017 for research internship in Germany
June 2014	Ranked in top 0.50% in IIT-JEE and 64 in WBJEE
FEBRUARY 2014	Offered KVPY fellowship by the Department of Science and Technology, Govt.
	of India

COURSEWORK

Graduate: Deep Learning Seminar; Reinforcement Learning: Theory & Practice;

Robot Learning; Natural Language Processing; Spoken Language Technologies; Math in Deep Learning; Statistical Models for Health and Behavioral Sciences;

Algorithms: Techniques and Theory; Programming Languages;

Undergraduate: Neural Networks & Fuzzy Logic; Machine Learning; Advanced Calculus;

Linear Algebra and Complex Variables; Probability and Statistics;

Computer Programming; Operating Systems; Object Oriented Programming; Advanced Computer Architecture; Algorithms and Complexity; Data Structures;

Discrete Mathematics

MOOC: Stanford's CS231n: Convolutional Neural Networks for Visual Recognition;

Stanford's CS224n:Natural Language Processing with Deep Learning;

UC Berkeley's CS294: Deep Reinforcement Learning

SOFTWARE SKILLS

Programming Language: Python; C; C++; Java; Matlab Autodifferentiation Framework: PyTorch; Tensorflow; Caffe

Python Package: Numpy; Scipy; SK-learn; Matplotlib; Seaborn; Plotly

Operating System: Linux (Debian, Ubuntu); MS Windows

Distributed Version Control: Git

Document Preparation: LTFX; MS Word

TEACHING EXPERIENCE

Spring 2025: Teaching assistant for "CS 381V: Visual Recognition" at UT Austin

SEMESTER 1, 2017-18: Teaching assistant for "Neural Networks and Fuzzy Logic" at BITS Pilani

CO-CURRICULAR ACTIVITIES

2016-17: Project coordinator of Instrumentation Forum, BITS Pilani

2014-17: Member of BITS Firefox Community, Google Developers' Group and

Instrumentation Forum at BITS Pllani

EXTRA-CURRICULAR ACTIVITIES

2016-17: Cultural secretary of Moruchhaya, the Bengali cultural association at BITS Pilani

2014-18: Member of Moruchhaya