

AKSHITA GUPTA

 [akshitac8.github.io](https://github.com/akshitac8) |  [Google Scholar](#) |  akshita.sem.iitr@gmail.com

RESEARCH INTEREST

- * Vision Transformers, Generative Adversarial Networks, Low-(Few- and Zero-) Shot Classification & Detection

RESEARCH EXPERIENCE

Research Engineer, Inception Institute of Artificial Intelligence

Supervisors: Dr Sanath Narayan, Dr Salman Khan, Dr Fahad Shahbaz Khan

Dec'18 – Now

- * Developing deep learning algorithms for low- (Few- and zero-) shot detection and classification, generative adversarial models and open-world object detection problems.
- * Developed rock & seismic layer classification system.
 1. Worked with the 12'th largest oil company ADNOC.
 2. Refined classification algorithm for the task of rock and texture classification.
 3. Maintained & deployed GUI Interface for the algorithm presenting real-time results.
- * Worked on satellite-imagery object detection and object counting system.
 1. Lead and maintained the main deployment codes working along with satellite imagery team.
 2. Object detection: Improved object detector models like PANet and Mask-RCNN for their collected data.
 3. Object Counting: Implemented and combined different counting algorithms like LCFCN and LPNs.

Research & Development Intern, Mozilla

Supervisor: Mrs. Emma Irwin

May'18 – Aug'18

- * Developed open-source analytics dashboard, metrics to evaluate diversity & inclusion across diff. communities.

Research Intern, IIT Roorkee

Supervisor: Dr R Balasubramanian

May'17 – Dec'18

- * Worked on acoustic scene recognition & audio tagging system using channel & spatial attention modules.

PUBLICATIONS

1. OW-DETR: Open-world Detection Transformer [[paper](#)]
Akshita Gupta, Sanath Narayan, Joseph KJ, Salman Khan, Fahad Shahbaz Khan, Mubarak Shah
Under Review in **major Computer Vision conference**
2. Discriminative Region-based Multi-Label Zero-Shot Learning [[paper](#), [code](#), [webpage](#)]
Sanath Narayan*, **Akshita Gupta***, Salman Khan, Fahad Shahbaz Khan, Ling Shao, Mubarak Shah
ICCV 2021
3. Generative Multi-Label Zero-Shot Learning [[paper](#), [code](#), [webpage](#)]
Akshita Gupta*, Sanath Narayan*, Salman Khan, Fahad Shahbaz Khan, Ling Shao, Joost van de Weijer
Under Review in **TPAMI**
4. Latent Embedding Feedback and Discriminative Features for Zero-Shot Classification [[paper](#), [code](#), [webpage](#)]
Sanath Narayan*, **Akshita Gupta***, Fahad Shahbaz Khan, Cees G.M. Snoek, Ling Shao
ECCV 2020
5. iSAID: A Large-scale Dataset for Instance Segmentation in Aerial Images [[paper](#), [webpage](#), [code](#)]
Syed Waqas Zamir*, Aditya Arora*, **Akshita Gupta**, Salman Khan, Guolei Sun, Fahad Shahbaz Khan, Fan Zhu, Ling Shao, Gui-Song Xia, Xiang Bai
CVPR-W Oral 2019
6. Acoustic features fusion using attentive multi-channel deep architecture [[paper](#), [ppt](#), [code](#)]
Gaurav Bhatt, **Akshita Gupta**, Aditya Arora, Balasubramanian Raman
InterSpeech-W 2018

(* denotes equal contribution)

EDUCATION

DIT University, Dehradun

B.Tech. in Computer Science

Aug'14 – Dec'18

PROFESSIONAL ACTIVITIES

- * **Conference Reviewing**
CVPR 2022, ICCV 2021
- * **Invited Talks and Panels**
ComputerVision talks Dec'21 [Call](#), Mozilla Open-source community [Call](#)
- * Undergraduate Teaching Assistant, TCS821: Cloud Computing

ACHIEVEMENTS

- * Travel Scholarship for ALL-Hands Mozilla, San Francisco. (Awarded to top 1% candidates)
- * [Outreachy](#) Scholarship recipient (2018- 2019). (Awarded to top 2% candidates)
- * Selected for Bertelsmann Data Science Scholarship. (Awarded to top 1500 students)
- * [Scored](#) among top 150 globally at Cognizant Mastercode Hackathon

PROGRAMMING SKILLS

- * **Languages:** Python, C++, SQL, HTML, Javascript
- * **Libraries:** Pytorch, Tensorflow, Keras
- * **Frameworks:** Flask, Bootstrap
- * **Software:** GIT, Docker, Latex