Anurag Singh

https://anurag14.github.io · anurags.it@nsit.net.in

Education

Technical University of Munich   Munich, Germany
MSc in Computer Science (GPA: 1.9/5 | 1.0 Best, 5.0 worse)   *Oct 22 (Expected)*
· **Relevant Courses:** Machine Learning, Intro to DL, Adv. DL for Computer Vision, Statistical Learning
  Theory, Seminar: Theoretical Advances in DL, Pracitcum: DL in Visual Computing
· **Ongoing Research:** Self-Supervised Out-of-Context Fake News Detection

Netaji Subhas Institute of Technology, University of Delhi   Delhi, India
B.E. in Information Technology (GPA: 8.7/10 | First Class with Distinction)   *Aug 14 - May 18*

Experience

Fraunhofer IKS   Munich, Germany
Working Student   *Apr 21 - July 21*
· Developed the idea for unsupervised out-of-distribution detection using clustering of latent feature bank and
  semantic prototypes generated from in-distribution data.

Indian Institute of Science   Bangalore, India
Research Fellow   *Jul 19- Present*
· Developed an active learning based algorithm for few shot semi-supervised domain adaptation, first-author
  paper accepted at **CVPRW 2021**.
· Designed novel regularizer for class imbalance in Zero-shot Sketch based Image retrieval, paper accepted at
  ECCV 2020 (Spotlight) $< 5\%$ acceptance rate. Developed novel unseen class detection mechanism to
  reduce the search set for generalized ZS-SBIR, paper accepted at **IEEE TMM 2020**
· Served as reviewer for WACV 2021, 2022

Royal Bank of Scotland (RBS)   Delhi, India
Software Engineer   *Jun 18 - Jul 19, May 17 - Jul 17*
· Designed face recognition system for access management to run in near real-time on edge [MVP]. Served as a
  reviewer of vendor based face recognition solutions for C-level RBS India management.
· As an intern in summer 2017, built a utility to replay lost brokerage messages saving ~ 500 man-hours annually.

IIIT Delhi   Delhi, India
Research Associate   *Aug 17 - Mar 18*
· Formulated an end-to-end model and evaluation metric for unsupervised image collection summarization. Work
  led to first author publication at BigMM 2019 where it won **Honourable Mention Award** [poster] [ppt].

Selected Publications All publications - bit.ly/anugscholar

· *Adaptive Margin Diversity Regularizer for Data Imbalance in Zero-Shot SBIR.* ECCV 2020 [pdf]
· *StyleGuide: Zero-Shot Sketch-based Image Retrieval Using Style-Guided Image Generation.* TMM 2020 [pdf]
· *Image Corpus Representative Summarization.* BigMM 2019, NUS Singapore [pdf]

Honours and Awards

· **Merit Scholarship:** Tuition waiver of (**28,000 \$**) at The University of Chicago MSCS Fall 2020.
· **Honorable Mention Award** at BigMM 2019 for being amongst top 3 of 250+ submissions.
· **Merit Scholarship**: Full tuition waiver at Netaji Subhas Institute of Technology (2014-2018).

Skills

· **Languages:** Python, Java, C++
· **Frameworks:** Pytorch, Tensorflow, Django
· **Tools:** Git, AWS-EC2, LaTeX