

Aarush Gupta

Third Year Undergraduate | Computer Science and Engineering
Indian Institute of Technology Roorkee

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REFERENCES

DR. MARCO PEDERSOLI

Assistant Professor
ETS Montreal, Canada
Email: marco.pedersoli@etsmtl.ca

DR. BIPLAB BANERJEE

Assistant Professor
IIT Bombay, India
Email: bbanerjee@iitb.ac.in

EDUCATION

IIT ROORKEE

B.TECH. IN COMP. SCI. & ENG.
2016-2020 | Roorkee, India
CGPA: 8.483/10.0

DAV SR. SEC. SCHOOL

SENIOR SECONDARY EDUCATION
2014-16 | Chandigarh, India
Secured 90.4% in 12th standard
(Examination conducted by CBSE)

NAVY CHILDREN SCHOOL

SECONDARY EDUCATION
2012-14 | Port Blair, India
Secured 10.0/10.0 CGPA in 10th standard
(Examination conducted by CBSE)

COURSEWORK

UNDERGRADUATE

- Object Oriented Programming
- Design & Analysis of Algorithms
- Operating Systems
- Data Structures
- Discrete Structures
- Computer Architecture & Microprocessors

PROGRAMMING SKILLS

Languages:

Python • C++ • C

Operating Systems:

Windows • Linux

Tools:

Keras • PyTorch • Spyder • Jupyter

Notebook • Git • Latex

Familiar with:

Java • HTML • CSS • JavaScript

EXPERIENCE

ÉCOLE DE TECHNOLOGIE SUPÉRIEURE | MAY 2018 – JULY 2018

Remote Research Internship | Prof. Marco Pedersoli

- Developed an end-to-end attention-based model for jointly learning the scene and facial features of an image for group-level emotion recognition [[GitHub Link](#)]
- The model developed achieved **4th rank** in the ICMI 2018 EmotiW Group Level Emotion Recognition Challenge. Also submitted a short paper describing the approach for review in ICMI 2018

PUBLICATIONS

AN ATTENTION MODEL FOR GROUP-LEVEL EMOTION RECOGNITION

Aarush Gupta, Dakshit Agrawal, Hardik Chauhan, Jose Dolz, Marco Pedersoli
Preprint arXiv:1807.03380. Submitted at EmotiW Challenge, ICMI 2018

PROJECTS

TRIPLET VAE FOR ZERO-SHOT LEARNING | FEB 2018 – PRESENT

Prof. Biplab Banerjee, IIT Roorkee

Developing a model for recognition of human actions in videos using Zero-Shot Learning

- Used Deep Metric Learning for learning a joint latent embedding of the visual and semantic features of the data points using a VAE based on the Triplet Loss function

UNSUPERVISED HUMAN ACTION RECOGNITION IN VIDEOS |

AUG 2017 – FEB 2018

Prof. Biplab Banerjee, IIT Roorkee

Developed a model which divides a video into clusters of video frames based on the human actions depicted by the frames.

- Implemented Spectral Clustering, using the Normalized Cuts Algorithm, for unsupervised clustering of video frames which constitute a common human action.
- Used Conditional Random Fields for incorporating the temporal features of the frames into the clustering algorithm.

ACHIEVEMENTS

2016 All India Rank 363

2015 KVPY Fellowship

2013 2nd Position

JEE Advanced, rank out of 200,000 candidates
National fellowship holder of one of the most prestigious fellowships in India(link)

State Level Science Quiz (Organized by the Science Unit, Directorate of Education, A&N Administration)

EXTRACURRICULAR ACTIVITIES

- **Core Member** : Vision & Language Group, IIT Roorkee [[Link](#)].
- **Student Mentor** : With Student Mentorship Program, IIT Roorkee
- **Badminton** : Completed one year of training under NSO in 1st year