

Akash Gupta

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RESEARCH INTERESTS

- Computer Vision, Deep Learning, Domain Adaptation, Transfer Learning, Adversarial Learning
- Video Generation, Enhancement and Representation learning; Action Recognition and Anticipation.

EDUCATION

University of California, Riverside, California, USA

- Ph.D. in Electrical Engineering Apr 2018 – Aug 2021
(Expected)
 - Advisor: Prof. Amit Roy-Chowdhury
 - GPA: 3.8 / 4.0
- M.S. in Electrical Engineering Sep 2016 – Mar 2018
 - Advisor: Prof. Amit Roy-Chowdhury
 - Thesis: Deep Learning Approaches for Identity Verification in Renaissance Portraits
 - Cumulative GPA: 3.8 / 4.0

Visvesvaraya National Institute Of Technology, Nagpur, Maharashtra, India

- B.Tech. in Electronics and Communications Sep 2010 – May 2014
 - Advisor: Prof. Ashwin Kothari
 - Thesis: Buccinatory Sensing Driven Artificial Companion
 - Cumulative GPA: 8.4 / 10.0

RESEARCH EXPERIENCE

JD.com AI Research, Mountain View

CA, USA

- Research Intern Jun 2020 – Dec 2020
 - Group: Computer Vision Group
 - Mentor: Dr. Jingen Liu
 - Project: Action Anticipation

MayaChitra Inc., Santa Barbara

CA, USA

- Research Intern Apr 2018 – Sep 2018
 - Mentors: Prof. B.S. Manjunath and Dr Lakshmanan Natrajan
 - Project: Classification and Detection of Malware using Computer Vision
 - Focus: Malware Analysis, Deep Learning, Image Processing

University of California, Riverside

CA, USA

- Graduate Student Researcher Apr 2017 – Present
 - Group: Video Computing Group
 - Advisor: Prof. Amit Roy-Chowdhury
 - Focus: Computer Vision and Machine Learning

Research Center Imarat (DRDO), Hyderabad

Telangana, India

- Summer Research Intern May 2013 – Jul 2013
 - Mentor: B. Someswara Rao, Scientist F
 - Project: Enhancing Frequency Resolution using FFT in Radar Seeker
 - Focus: Signal Processing and Communication

TEACHING EXPERIENCE

University of California, Riverside

CA, USA

- Teaching Assistant Mar 2020 – May 2020
 - Course: Advanced Computer Vision (EE240)
 - Instructor: Prof. Amit Roy-Chowdhury
- Teaching Assistant Mar 2020 – May 2020
 - Course: Introduction to Deep Learning (EE260)
 - Instructor: Prof. Samet Oymak
- Teaching Assistant Mar 2019 – May 2019
 - Course: Advanced Computer Vision (EE240)
 - Instructor: Prof. Amit Roy-Chowdhury

WORK EXPERIENCE

Standard & Poor's Global Market Research, Gurgaon

Harayana, India
Jun 2014 – Jul 2016

- **Quality Analyst**
 - Projects: Real-Time Desktop Application and Market Data Reporting System
 - Manager: Kristina Younker

SELECTED PUBLICATIONS

- [1] Akash Gupta, Padmaja Jonnalagedda, Bir Bhanu, and Amit K. Roy-Chowdhury, “Ada-VSR: Adaptive Video Super-Resolution with Meta-Learning”, *ACM International Conference on Multimedia (ACM MM)*, 2021. **(Oral)**
- [2] Akash Gupta, Abhishek Aich, and Amit K. Roy-Chowdhury, “ALANET: Adaptive Latent Attention Network for Joint Video Deblurring and Interpolation”, *ACM International Conference on Multimedia (ACM MM)*, 2020. **(Oral)**
- [3] Akash Gupta*, Rameswar Panda*, Sujoy Paul, Jianming Zhang and Amit K. Roy-Chowdhury, “Adversarial Knowledge Transfer from Unlabeled Data”, *ACM International Conference on Multimedia (ACM MM)*, 2020. (* joint first authors)
- [4] Abhishek Aich*, Akash Gupta*, Rameswar Panda, Rakib Hyder, M. Salman Asif, and Amit K. Roy-Chowdhury, “Non-Adversarial Video Synthesis with Learned Priors”, *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, 2020. (* joint first authors)
- [5] Akash Gupta, Abhishek Aich, Kevin Rodriguez, G. Venugopala Reddy, and Amit K. Roy-Chowdhury, “Deep Quantized Representation for Enhanced Reconstruction”, *ISBI 2020 Workshop*, 2020.
- [6] Akash Gupta, N. C. Mithun, Conrad Rudolph, and Amit Roy-Chowdhury, “Deep Learning based Identity Verification in Renaissance Portraits”, ICME 2018

PRE-PRINTS

- [1] Akash Gupta, Amit K. Roy-Chowdhury, Jingen Liu, Liefeng Bo and Tao Mei “A-ACT: Action Anticipation through Cycle Transformations”, *Pre-print (Under review)*, 2021.

AWARDS & SCHOLARSHIPS

- **Deans Distinguished Fellowship Award**, University of California, Riverside 2018 – 2019

TECHNICAL SKILLS

- **Programming Skills:** Python (proficient) , MATLAB (proficient), C++ (novice)
- **Computing Libraries:** NumPy, OpenCV, SQLite, Pillow, Scikit-Learn, Flask
- **Deep Learning Frameworks:** PyTorch, Caffe, TensorFlow (Keras)
- **Databases:** MySQL, Microsoft SQL

GRADUATE COURSES

- Adv. Computer Vision • Computational Learning • Information Theory • Pattern Recognition • Convex Optimization • Intermediate Data Structures and Algorithm • Adv. Digital Signal Processing • State and Parameter Estimation • Stochastic Processes • Math. Methods for EE

PROFESSIONAL ACTIVITIES

Conference Reviewer:

IEEE ICIP 2018-2021, IEEE ICPR 2020-2021, IEEE ECCV2020–MVA, IEEE CVPR 2021, IEEE ICCV 2021

Journal Reviewer:

IEEE TPAMI

Program Committee Member:

IEEE ECCV2020–MVA

REFERENCES

Available on request.