

# Rameswar Panda

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📄 <https://rpand002.github.io/>

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## Research Interests

Computer Vision, Machine Learning, Multimedia

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## Education

- 2014–Present **University of California, Riverside, USA.**  
Ph.D. Candidate in Electrical and Computer Engineering  
Advisor: Amit K. Roy-Chowdhury [link](#)  
Thesis: Beyond Supervised Learning: Summarizing Videos with Incidental Supervision
- 2011–2013 **Jadavpur University, India.**  
M.S. in Computer Engineering  
Advisor: Ananda S. Chowdhury [link](#)  
Thesis: Graph Theoretic Solutions for Two Multimedia Problems
- 2007–2011 **Biju Patnaik University of Technology, India.**  
B.Tech. in Electronics and Telecommunication Engineering

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## Research Experience

- 09.2014 – Present **University of California, Riverside, USA.**  
Graduate Student Researcher, Video Computing Group  
Advisor: Amit K. Roy-Chowdhury
- Incidental Supervision for Video Summarization
  - Unsupervised Adaptive Person Re-Identification
  - Reinforcement Learning for Online Video Fast-Forwarding
  - Webly Supervised Learning for Image-Text Retrieval
  - Advertisement Image Understanding (Joint Work with Adobe Research)
- 06.2018 – Present **NEC Labs America, Cupertino, USA.**  
Research Intern, Media Analytics Group  
Mentors: Xiang Yu, Samuel Schuler, Manmohan Chandraker
- Cross-Dataset Knowledge Transfer for Person Re-Identification
- 06.2017-11.2017 **Adobe Research, San Jose, CA.**  
Research Intern, Creative Intelligence Lab  
Mentors: Jianming Zhang, Haoxiang Li, Joon-Young Lee, Xin Lu
- Understanding and Overcoming Dataset Bias in Visual Emotion Analysis
- 06.2016-09.2016 **Siemens Corporate Research, Princeton, USA.**  
Research Intern, Computer Vision Group  
Mentors: Ziyang Wu, Jan Ernst
- Weakly Supervised Defect Detection and Localization in Images
- 06.2013-08.2014 **Silicon Institute of Technology, Bhubaneswar, India.**  
Research Assistant, Department of ETC  
Mentor: Milan K. Biswal
- Personalized Video Key Frame Extraction using Social Media Clues

Jul. 2011 - Jun. 2013 **Jadavpur University**, Kolkata, India.  
Research Assistant, IVPR Group  
Advisor: Ananda S. Chowdhury  
◦ Video Key Frame Extraction using Delaunay Graph Clustering  
◦ Movie Scene Segmentation using Fast Spectral Clustering

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## Publications ([i](#) Google Scholar Profile)

### Journal Papers

- TIP 2017 **Diversity-aware Multi-Video Summarization.**  
Rameswar Panda, Niluthpol C. Mithun, Amit K. Roy-Chowdhury  
IEEE Transactions on Image Processing, 2017 [i](#) [paper](#)
- TMM 2017 **Multi-View Surveillance Video Summarization via Joint Embedding and Sparse Optimization.**  
Rameswar Panda, Amit K. Roy-Chowdhury  
IEEE Transactions on Multimedia, 2017 [i](#) [paper](#)
- TCYB 2017 **Nystrom Approximated Temporally Constrained Multi-similarity Spectral Clustering Approach for Movie Scene Detection.**  
Rameswar Panda, Sanjay K. Kuanar, Ananda S. Chowdhury  
IEEE Transactions on Cybernetics, 2017 [i](#) [paper](#)
- CVIU 2016 **Continuous Adaptation of Multi-Camera Person Identification Models through Sparse Non-redundant Representative Selection.**  
Abir Das, Rameswar Panda, Amit K. Roy-Chowdhury  
Computer Vision and Image Understanding, 2016 [i](#) [paper](#)
- JVCIR 2013 **Video Key frame Extraction through Dynamic Delaunay Clustering with a Structural Constraint.**  
Sanjay K. Kuanar, Rameswar Panda, Ananda S. Chowdhury  
Journal of Visual Communication and Image Representation [i](#) [paper](#)

### Conference Papers

- ECCV 2018 **Contemplating Visual Emotions: Understanding and Overcoming Dataset Bias.**  
Rameswar Panda, Jianming Zhang, Haoxiang Li, Joon-Young Lee, Xin Lu, Amit K. Roy-Chowdhury  
European Conference on Computer Vision, 2018 (Accepted) [i](#) [paper](#)
- MM 2018 **Webly Supervised Joint Embedding for Cross-Modal Image-Text Retrieval.**  
Niluthpol C. Mithun, Rameswar Panda, Evangelos Papalexakis, Amit K. Roy-Chowdhury  
ACM International Conference on Multimedia, 2018 (Accepted) [i](#) [paper](#)
- CVPR 2018 **FFNet: Video Fast-Forwarding via Reinforcement Learning.**  
Shuyue Lan, Rameswar Panda, Qi Zhu, Amit K. Roy-Chowdhury  
IEEE Conference on Computer Vision and Pattern Recognition, 2018 [i](#) [paper](#)
- ICCV 2017 **Weakly Supervised Summarization of Web Videos.**  
Rameswar Panda, Abir Das, Ziyang Wu, Jan Ernst, Amit K. Roy-Chowdhury  
International Conference on Computer Vision, 2017 [i](#) [paper](#)
- CVPR 2017 **Collaborative Summarization of Topic-Related Videos.**  
Rameswar Panda, Amit K. Roy-Chowdhury  
IEEE Conference on Computer Vision and Pattern Recognition, 2017 [i](#) [paper](#)

- CVPR 2017 **Unsupervised Adaptive Re-identification in Open World Dynamic Camera Networks.**  
 Spotlight [Rameswar Panda\\*](#), Amran Hossen Bhuiyan\*, Vittorio Murino, Amit K. Roy-Chowdhury  
 IEEE Conference on Computer Vision and Pattern Recognition, 2017 [i](#) [paper](#)
- ICASSP 2017 **Sparse Modeling for Topic-oriented Video Summarization.**  
 Oral [Rameswar Panda\\*](#), Amit K. Roy-Chowdhury  
 International Conference on Acoustics, Speech and Signal Processing, 2017 [i](#) [paper](#)
- MM 2016 **Generating Diverse Image Datasets with Limited Labeling.**  
 Niluthpol C. Mithun, [Rameswar Panda](#), Amit K. Roy-Chowdhury  
 ACM International Conference on Multimedia, 2016 [i](#) [paper](#)
- ICPR 2016 **Video Summarization in a Multi-View Camera Network.**  
 Oral [Rameswar Panda](#), Abir Das, Amit K. Roy-Chowdhury  
 International Conference on Pattern Recognition, 2016 [i](#) [paper](#)
- ICIP 2016 **Embedded Sparse Coding for Summarizing Multi-View Videos.**  
[Rameswar Panda](#), Abir Das, Amit K. Roy-Chowdhury  
 International Conference on Image Processing, 2016 [i](#) [paper](#)
- ICIP 2015 **Active Image Pair Selection for Continuous Person Re-identification.**  
 Abir Das, [Rameswar Panda](#), Amit K. Roy-Chowdhury  
 International Conference on Image Processing, 2015 [i](#) [paper](#)
- ICPR 2014 **Scalable Video Summarization using Skeleton Graph and Random Walk.**  
 Oral [Rameswar Panda](#), Sanjay K. Kuanar, Ananda S. Chowdhury  
 International Conference on Pattern Recognition, 2014 [i](#) [paper](#)
- ICPR 2012 **Video Story-board Design using Delaunay Graphs.**  
 Ananda S. Chowdhury, Sanjay K. Kuanar, [Rameswar Panda](#), Moloy N. Das  
 International Conference on Pattern Recognition, 2012 [i](#) [paper](#)

#### Manuscripts Under Review

- TPAMI 2018 **Unsupervised Adaptation of Re-identification Models in Camera Networks.**  
[Rameswar Panda](#), Amran Hossen Bhuiyan, Vittorio Murino, Amit K. Roy-Chowdhury  
 IEEE Transactions on Pattern Analysis and Machine Intelligence, 2018
- TCSVT 2018 **Construction of Diverse Image Datasets from Web with Limited Labeling.**  
 Niluthpol C. Mithun, [Rameswar Panda](#), Amit K. Roy-Chowdhury  
 IEEE Transactions on Circuit and Systems for Video Technology, 2018

#### Patents

- 62/430,463 **Weakly Supervised Visual Anomaly Detection and Segmentation in Images.**  
[Rameswar Panda](#), Ziyang Wu, Ramesh Nair, Arun Innaje, Jan Ernst  
 U.S. Provisional Patent Application filed on Dec 06, 2016

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#### Talks

- July 2017 **Unsupervised Adaptive Re-identification in Dynamic Camera Network.**  
 Spotlight Presentation, CVPR, Hawaii, USA.
- Sept. 2016 **Embedded Sparse Coding for Summarizing Multi-View Videos.**  
 Oral Presentation, ICIP, Phoenix, USA.
- Dec. 2015 **Sparse Optimization for Summarizing Videos.**  
 GIAN Workshop on Video Understanding, IIT, Kharagpur, India.

Dec. 2013 **A Frequency Domain Approach to Silhouette based Gait Recognition.**  
Oral Presentation, NCVPRIPG, Jodhpur, India.

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## Honors & Awards

June 2018 **S. Sue Johnson Endowed Graduate Award**, University of California, Riverside.  
June 2018 **Doctoral Consortium Award**, IEEE Computer Vision and Pattern Recognition.  
Apr. 2018 **Dissertation Year Program Fellowship Award**, University of California, Riverside.  
Oct. 2017 **Graduate Research Symposium Scholarship**, Amazon Research.  
Sept. 2014 **Dean's Distinguished Fellowship Award**, University of California, Riverside.  
June 2013 **University 2nd rank in M.S.**, Jadavpur University, India.

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## Professional Services

Conference Reviewer IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), 2017, 2018  
International Conference on Computer Vision and Pattern Recognition (**ICCV**), 2017  
European Conference on Computer Vision (**ECCV**), 2018  
Asian Conference on Computer Vision (**ACCV**), 2018  
International Conference on Computer Vision and Image Processing (**CVIP**), 2018

Journal Reviewer IEEE Transactions on Pattern Analysis and Machine Intelligence (**TPAMI**)  
IEEE Transactions on Circuits and Systems for Video Technology (**TCSVT**)  
IEEE Transactions on Image Processing (**TIP**)  
IEEE Transactions on Multimedia (**TMM**)  
IEEE Transactions on Industrial Electronics (**TIE**)  
Computer Vision and Image Understanding (**CVIU**)  
Machine Vision and Applications (**MVA**)  
Pattern Recognition Letters (**PRL**)  
Signal Processing Letters (**SPL**)

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## Teaching Experience

Teaching Assitant **University of California, Riverside.**  
◦ EE 240 Pattern Recognition (Spring 2017)  
◦ EE 215 Stochastic Process (Fall 2016)

Teaching Assitant **Jadavpur University, India.**  
◦ C Programming and Data Structures

Instructor **Silicon Institute of Technology, India.**  
◦ Image Processing  
◦ Digital Signal Processing

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## Technical Skills

Deep Learning Libraries Caffe, Pytorch, Keras  
Programming Python, C/C++  
Toolbox / Software MATLAB, OpenCV

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## References

Available on Request.