Karan Sikka

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Education

- *Ph.D., ECE*, expected Winter 2016
  University of California, San Diego, GPA 3.83/4.0
  - *Advisor: Dr. Marian S. Bartlett*
  - *Machine Perception Lab*
  - *Interests: Learning under weak supervision, Facial expression analysis, Action recognition, Time series modeling, Bayesian methods and graphical modeling*
- *B.Tech., ECE*, April 2010
  Indian Institiute of Technology Guwahati, GPA: 9.08/10.0

Publications

- Sikka, K. (2014). Facial Expression Analysis for Estimating Pain in Clinical Settings. Proceedings of the 16th International Conference on Multimodal Interaction, Doctoral Consortium, 349-353 (ACM).
- Dhall, A., Goecke, R., Joshi, J., Sikka, K. and Gedeon, T. (2014). Emotion recognition in the wild challenge 2014: Baseline, data and protocol. Proceedings of the 16th International Conference on Multimodal Interaction. 461-466 (ACM).
- Sikka, K., Dhall, A. and Bartlett, M. (2014). Weakly Supervised Pain Localization and Classification with Multiple Segment Learning. The Best of Face and Gesture 2013, Image and Vision Computing (Elsevier). (Impact Factor: 1.959)
- Dhall, A., Sikka, K., Littlewort, G., Goecke, R. and Bartlett, M. (2014). A Discriminative Parts Based Model Approach for Fiducial Points Free and Shape Constrained Head Pose Normalisation In The Wild. IEEE Winter Conference on Applications of Computer Vision (WACV 2014). (Acceptance Rate: 40
- Sikka, K., Dykstra, K., Sathyanarayana, S., Littlewort, G. and Bartlett, M. (2013). Multiple Kernel Learning for Emotion Recognition in the Wild, Proceedings of the 15th ACM on International Conference on Multimodal Interaction
- Sikka, K., Dhall, A., and Bartlett, M. (2013). Weakly Supervised Pain Localization using Multiple Instance Learning, IEEE International Conference on Automatic Face and Gesture Recognition, 2013. (Oral Presentation, Acceptance Rate (Oral): 12%)
- Sikka, K., Wu, T., Susskind, J., and Bartlett, M. (2012). Exploring Bag of Words Architectures in the Facial Expression Domain. European Conference on Computer Vision, Workshop on Whats in a Face. Lecture Notes in Computer Science, Springer. (Oral Presentation, Acceptance Rate: 33%)
- Singh, P. K., Sinha, N., Sikka, K., and Mishra, A. K. (2011). Texture information-based hybrid methodology for the segmentation of SAR images. International Journal of Remote Sensing (Taylor and Francis), 32(15), 4155-4173.
- Sikka, K., and Deserno, T. M. (2010). Comparison of algorithms for ultrasound image segmentation without ground truth. SPIE Medical Imaging, 7627, 76271C-76271C-9.
- Sikka, K., Sinha, N., Singh, P. K., and Mishra, A. K. (2009). A fully automated algorithm under modified FCM framework for improved brain MR image segmentation. Magnetic resonance imaging (Elsevier), 27(7), 994-1004.

Professional Experience

- Qualcomm R&D, San Diego, California, USA, Jun'11-Sept'11

  - *Augmented Reality Team*
  - *Interest point detector and local features*
- Medical Informatics Lab, RWTH Aachen, Germany May'09-July'11
  - *Summer Intern*
  - *Unsupervised algorithms for comparing segmentation maps*
  - *Advisor: Prof. Thomas M. Deserno, Dept. of Medical Informatics*

Honors

- Awarded a travel grant for Doctoral Consortium at ACM International Conference on Multimodal Interaction 2014.
- Received Best Paper Award at EmotiW'13 Challenge, 15th ACM on International conference on Multimodal Interaction 2013.
- Received Best Student Paper Honorable Mention Award at 10th IEEE International Conference on Automatic Face and Gesture Recognition 2013.
- Awarded travel grant for attending doctoral consortium at IEEE Automatic Face and Gesture Recognition, 2013.
- Jacobs Scholarship UCSD- three year fellowship- highest form of recognition for any PhD candidate in ECE Dept.
- Awarded an SPIE Contingency Student Travel Grant for SPIE Medical Conference, 2010.
- DAAD- German Academic Exchange Service, Undergraduate Internships, 2009.

Professinal Services

- Reviewer for IEEE Transaction on Affective Computing, Elsevier Pattern Recognition Letters, Automatic Face and Gesture Recognition 2015
- Organized the Second Emotion Recognition In The Wild Challenge and Workshop (EmotiW 2014) at ACM International Conference on Multimodal Interaction (ICMI 2014) along with Abhinav Dhall et. al..

Relevant Courses

Statistical Learning, Parameter Estimation, Convex Optimization, Digital Signal Processing, Computer Vision-Structure from Motion and Object Recognition, Bayesian Methods, Random Processes, Wavelets.

December 8, 2014