

Seungryong Kim's Curriculum Vitae

Assistant Professor, Department of Computer Science and Engineering, Korea University, Seoul, Korea

CONTACT INFORMATION

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RESEARCH INTEREST

2-D/3-D Computer Vision, Computational Photography, Machine Learning, Deep Learning
Continuous/Discrete Optimization, Sparse Representation
Multi-modal Computer Vision
Sparse/Dense Visual Correspondence and Its Applications
Multi-Sensor/Multi-spectral Computer Vision
3-D Reconstruction, 3-D Modeling

EDUCATION

Ph.D. in School of Electrical and Electronic Engineering Mar. 2012 – Feb. 2018
Yonsei University, Seoul, Korea
Dissertation- Beyond Visual Similarities: Exploring Robust Feature Representation and Regularization for Dense Correspondence
Supervised by Prof. Kwanghoon Sohn

B.S. in School of Electrical and Electronic Engineering Mar. 2008 – Feb. 2012
Yonsei University, Seoul, Korea
Graduated *Cum Laude*

EXPERIENCE

Assistant Professor Mar. 2020 – Present
Department of Computer Science and Engineering
Korea University, Seoul, Korea

Postdoctoral Researcher Mar. 2019 – Feb. 2020
School of Computer and Communication Sciences
École Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Switzerland
Working with Prof. Sabine Süsstrunk, Dr. Mathieu Salzmann, Prof. Pascal Fua

Postdoctoral Researcher Mar. 2018 – Feb. 2019
School of Electrical and Electronic Engineering
Yonsei University, Seoul, Korea
Working with Prof. Kwanghoon Sohn

Research Intern Sep. 2015 – Feb. 2016
Internet Graphics Group
Microsoft Research Asia (MSRA), Beijing, China
Working with Dr. Stephen Lin

PUBLICATION

International Journal

- Matteo Poggi, **Seungryong Kim**, Fabio Tosi, Sunok Kim, Filippo Aleotti, Dongbo Min, Kwanghoon Sohn, and Stefano Mattoccia, "On the Confidence of Stereo Matching in a Deep-Learning Era: a Quantitative Evaluation," *IEEE Trans. on Pattern Analysis and Machine Intelligence (TPAMI)*. (Accepted) (Impact Factor: **17.861**)
- Jaehoon Cho, **Seungryong Kim**, Dongbo Min, and Kwanghoon Sohn, "Single Image Deraining Using Time-lapse Data," *IEEE Trans. on Image Processing (TIP)*. (Accepted) (Impact Factor: **9.340**)
- Jiyoung Lee, Sunok Kim, **Seungryong Kim**, and Kwanghoon Sohn, "Tri-modal Recurrent Attention Networks for Emotion Recognition," *IEEE Trans. on Image Processing (TIP)*. (Accepted) (Impact Factor: **9.340**)
- Sunok Kim, Dongbo Min, **Seungryong Kim**, and Kwanghoon Sohn, "Learning Adversarial Confidence Measures for Robust Stereo Matching," *IEEE Trans. on Intelligent Transportation Systems (TITS)*. (Accepted) (Impact Factor: **6.319**)
- Seungryong Kim**, Dongbo Min, Stephen Lin, and Kwanghoon Sohn, "Dense Cross-Modal Correspondence Estimation with the Deep Self-Correlation Descriptor," *IEEE Trans. on Pattern*

Analysis and Machine Intelligence (TPAMI). (Accepted) (Impact Factor: **17.861**)

6. **Seungryong Kim**, Dongbo Min, Stephen Lin, and Kwanghoon Sohn, "Discrete-Continuous Transformation Matching for Dense Semantic Correspondence," *IEEE Trans. on Pattern Analysis and Machine Intelligence (TPAMI)*, vol. 42, no. 1, pp. 59-73, Jan. 2020. (Impact Factor: **17.861**)
 7. Sunghun Joung, **Seungryong Kim**, Kihong Park, and Kwanghoon Sohn, "Unsupervised Stereo Matching for Confidential Correspondence Consistency," *IEEE Trans. on Intelligent Transportation Systems (TITS)*. (Accepted) (Impact Factor: **6.319**)
 8. Kihong Park, **Seungryong Kim**, and Kwanghoon Sohn, "High-precision Depth Estimation Using Uncalibrated LiDAR and Stereo Fusion," *IEEE Trans. on Intelligent Transportation Systems (TITS)*, vol. 21, no. 1, pp. 321-335, Jan. 2020. (Impact Factor: **6.319**)
 9. Somi Jeong, **Seungryong Kim**, Kihong Park, and Kwanghoon Sohn, "Learning to Find Unpaired Cross-spectral Correspondences," *IEEE Trans. on Image Processing (TIP)*, vol. 28, no. 11, pp. 5394-5406, Nov. 2019. (Impact Factor: **9.340**)
 10. **Seungryong Kim**, Dongbo Min, Bumsub Ham, Stephen Lin, and Kwanghoon Sohn, "FCSS: Fully Convolutional Self-Similarity for Dense Semantic Correspondence," *IEEE Trans. on Pattern Analysis and Machine Intelligence (TPAMI)*, vol. 41, no. 03, pp. 581-595, Mar. 2019. (Impact Factor: **17.861**)
 11. Sunok Kim, Dongbo Min, **Seungryong Kim**, and Kwanghoon Sohn, "Unified Confidence Estimation Networks for Robust Stereo Matching," *IEEE Trans. on Image Processing (TIP)*, vol. 28, no. 3, pp. 1299-1313, Mar. 2019. (Impact Factor: **9.340**)
 12. Kihong Park, **Seungryong Kim**, and Kwanghoon Sohn, "Unified Multi-spectral Pedestrian Detection Based on Probabilistic Fusion Networks," *Pattern Recognition (PR)*, vol. 80, pp. 143-155, Aug. 2018. (Impact Factor: **7.196**)
 13. Sunok Kim, Dongbo Min, **Seungryong Kim**, and Kwanghoon Sohn, "Feature Augmentation for Learning Confidence Measure in Stereo Matching," *IEEE Trans. on Image Processing (TIP)*, vol. 26, no. 12, pp. 6019-6033, Dec. 2017. (Impact Factor: **9.340**)
 14. **Seungryong Kim**, Dongbo Min, Bumsub Ham, Minh N. Do, and Kwanghoon Sohn, "DASC: Robust Dense Descriptor for Multi-modal and Multi-spectral Correspondence Estimation," *IEEE Trans. on Pattern Analysis and Machine Intelligence (TPAMI)*, vol. 39, no. 9, pp. 1712-1729, Sep. 2017. (Impact Factor: **17.861**)
 15. **Seungryong Kim**, Rui Cai, Kihong Park, Sunok Kim, and Kwanghoon Sohn, "Modality-Invariant Image Classification Based on Modality Uniqueness and Dictionary Learning," *IEEE Trans. on Image Processing (TIP)*, vol. 26, no. 2, pp. 884-899, Feb. 2017. (Impact Factor: **9.340**)
 16. Seungchul Ryu, **Seungryong Kim**, and Kwanghoon Sohn, "Local Area Transform for Cross Modal Correspondence Matching," *Pattern Recognition (PR)*, vol. 63, pp. 218-228, Mar. 2017. (Impact Factor: **7.196**)
 17. Jongin Son, **Seungryong Kim**, and Kwanghoon Sohn, "Fast Illumination-Robust Foreground Detection Using Hierarchical Distribution Map for Real-time Video Surveillance System," *Expert Systems with Applications (ESWA)*, vol. 66, no. 30, pp. 32-41, Dec. 2016.
 18. Jongin Son, **Seungryong Kim**, Sanghoon Kim and Kwanghoon Sohn, "A Multi-Vision Sensor-based Fast Localization System with Image Matching in Challenging Outdoor Environments," *Expert Systems with Applications (ESWA)*, vol. 42, no. 22, pp. 8830-8839, Dec. 2015.
 19. **Seungryong Kim**, Bumsub Ham, Bongjoo Kim, and Kwanghoon Sohn, "Mahalanobis Distance Cross-Correlation for Illumination Invariant Stereo Matching," *IEEE Trans. on Circuits and Systems for Video Technology (TCSVT)*, vol. 24, no. 12, pp. 3839-3860, Dec. 2014.
- International Journal
(Under Review)
1. Sungil Choi, **Seungryong Kim**, Kihong Park, and Kwanghoon Sohn, "Non-local Feature Synthesis Network for Inpainting," *IEEE Trans. on Image Processing (TIP)*. (Under Review)
 2. Sangryul Jeon, **Seungryong Kim**, Dongbo Min, and Kwanghoon Sohn, "Pyramidal Semantic Correspondence Networks," *IEEE Trans. on Pattern Analysis and Machine Intelligence (TPAMI)*. (Under Review)
 3. Jiyoung Lee, **Seungryong Kim**, Sunok Kim, and Kwanghoon Sohn, "Learning Discriminative Action Tubelets for Weakly-supervised Action Detection," *IEEE Trans. on Image Processing (TIP)*. (Under Review)

1. Sunghwan Hong and **Seungryong Kim**, "Deep Matching Prior: Test-Time Optimization for Dense Correspondence," *IEEE International Conference on Computer Vision (ICCV)*, 2021.
2. Sunghun Joung, **Seungryong Kim**, Minsu Kim, Ig-Jae Kim, and Kwanghoon Sohn, "Learning Canonical 3D Object Representation for Fine-grained Recognition," *IEEE International Conference on Computer Vision (ICCV)*, 2021.
3. Hyesong Choi, Hansang Lee, Sunkyoung Kim, Sunok Kim, **Seungryong Kim**, Kwanghoon Sohn, and Dongbo Min, "Adaptive Confidence Thresholding for Monocular Depth Estimation," *IEEE International Conference on Computer Vision (ICCV)*, 2021.
4. Yunsung Lee, Teakgyu Hong, Han-Cheol Cho, Junbum Cha, and **Seungryong Kim**, "Hough Contrastive Learning: Hough Voting to Find Better Positive Pairs in Dense Self-supervised Representation Learning," *ICML 2021 Workshop: Self-Supervised Learning for Reasoning and Perception (ICMLW)*, 2021
5. Sungha Choi, Sunghun Jung, Huiwon Yun, Joanne Kim, **Seungryong Kim**, and Jaegul Choo, "RobustNet: Improving Domain Generalization in Urban-Scene Segmentation via Instance Selective Whitening," *IEEE Conf. Computer Vision Pattern Recognition (CVPR)*, Jun. 2021. **(Oral Presentation)**
6. Sangryul Jeon, Dongbo Min, **Seungryong Kim**, and Kwanghoon Sohn, "Mining Better Samples for Contrastive Learning of Temporal Correspondence," *IEEE Conf. Computer Vision Pattern Recognition (CVPR)*, Jun. 2021. **(27% acceptance rate)**
7. Yunsung Lee, Teakgyu Hong, and **Seungryong Kim**, "Data Augmentation for Document Images," AAAI Conference on Artificial Intelligence Workshop- The AAAI-21 Workshop on Scientific Document Understanding (**AAAIW**), Feb. 2021.
8. Minsu Kim, Sunghun Joung, **Seungryong Kim**, JungIn Park, Ig-Jae Kim, and Kwanghoon Sohn, "Cross-Domain Grouping and Alignment for Domain Adaptive Semantic Segmentation," AAAI Conference on Artificial Intelligence (**AAAI**), Feb. 2021.
9. **Seungryong Kim**, Sabine Süssstrunk, and Mathieu Salzmann, "Volumetric Transformer Networks," *European Conference on Computer Vision (ECCV)*, Sep. 2020.
10. Sangryul Jeon, Dongbo Min, **Seungryong Kim**, and Kwanghoon Sohn, "Guided Semantic Flow," *European Conference on Computer Vision (ECCV)*, Sep. 2020.
11. Deblina Bhattacharjee, **Seungryong Kim**, Guillaume Vizier, and Mathieu Salzmann, "DUNIT: Detection-based Unsupervised Image-to-Image Translation," *IEEE Conf. Computer Vision Pattern Recognition (CVPR)*, Jun. 2020. **(22% acceptance rate)**
12. Sunghun Joung, **Seungryong Kim**, Hanjae Kim, Minsu Kim, Ig-Jae Kim, Junghyun Cho, and Kwanghoon Sohn, "Cylindrical Convolutional Networks for Joint Object Category and Viewpoint Estimation," *IEEE Conf. Computer Vision Pattern Recognition (CVPR)*, Jun. 2020. **(22% acceptance rate)**
13. Jiyoung Lee, **Seungryong Kim**, Sunok Kim, Jungin Park, and Kwanghoon Sohn, "Context-Aware Emotion Recognition Networks," *IEEE International Conference on Computer Vision (ICCV)*, Oct. 2019. **(25% acceptance rate)**
14. Sangryul Jeon, Dongbo Min, **Seungryong Kim**, and Kwanghoon Sohn, "Joint Learning of Semantic Alignment and Object Landmark Detection," *IEEE International Conference on Computer Vision (ICCV)*, Oct. 2019. **(25% acceptance rate)**
15. Jungin Park, Jiyoung Lee, Sangryul Jeon, **Seungryong Kim**, and Kwanghoon Sohn, "Graph Regularization Network with Semantic Affinity for Weakly-supervised Temporal Action Localization," *IEEE International Conference on Image Processing (ICIP)*, Sep. 2019
16. Minsu Kim, Sunghun Joung, Kihong Park, **Seungryong Kim**, and Kwanghoon Sohn, "Unpaired Cross-Spectral Pedestrian Detection via Adversarial Feature Learning," *IEEE International Conference on Image Processing (ICIP)*, Sep. 2019
17. **Seungryong Kim**, Dongbo Min, Somi Jeong, Sunok Kim, Sangryul Jeon, and Kwanghoon Sohn, "Semantic Attribute Matching Networks," *IEEE Conf. Computer Vision Pattern Recognition (CVPR)*, Jun. 2019. **(25.2% acceptance rate)**
18. Sunok Kim, **Seungryong Kim**, Dongbo Min, and Kwanghoon Sohn, "LAF-Net: Locally Adaptive Fusion Networks for Stereo Confidence Estimation," *IEEE Conf. Computer Vision Pattern Recognition (CVPR)*, Jun. 2019. **(Oral Presentation) (5.58% acceptance rate)**
19. **Seungryong Kim**, Stephen Lin, Sangryul Jeon, Dongbo Min, and Kwanghoon Sohn, "Recurrent Transformer Networks for Semantic Correspondence," *Neural Information Processing Systems*

(NeurIPS), Dec. 2018. (**Spotlight Presentation**) (3.46% acceptance rate)

20. Jiyoung Lee, Sunok Kim, **Seungryong Kim**, and Kwanghoon Sohn, "Audio-Visual Attention Networks for Emotion Recognition," *ACM Multimedia Workshop- Workshop on Audio-Visual Scene Understanding for Immersive Multimedia (MMW)*, Oct. 2018.
21. Jungin Park, Sangryul Jeon, **Seungryong Kim**, Jiyoung Lee, Sunok Kim, and Kwanghoon Sohn, "Learning to Detect, Associate, and Recognize Human Actions and Surrounding Scenes in Untrimmed Videos," *ACM Multimedia Workshop- The 1st Workshop and Challenge on Comprehensive Video Understanding in the Wild (MMW)*, Oct. 2018.
22. Kwanghoon Sohn, Ming-Hsuan Yang, Hyeran Byun, Jongwoo Lim, Jison Hsu, Stephen Lin, Euntai Kim, and **Seungryong Kim**, "CoVieW'18: The 1st Workshop and Challenge on Comprehensive Video Understanding in the Wild," *ACM Multimedia (MM)*, Oct. 2018.
23. Sangryul Jeon, **Seungryong Kim**, Dongbo Min, and Kwanghoon Sohn, "PARN: Pyramidal Affine Regression Networks for Dense Semantic Correspondence," *European Conference on Computer Vision (ECCV)*, Sep. 2018. (31.8% acceptance rate)
24. Sungil Choi, **Seungryong Kim**, Kihong Park, and Kwanghoon Sohn, "Learning Descriptor, Confidence, and Depth Estimation in Multi-view Stereo," *IEEE CVPR Workshop- 1st International Workshop on Deep Learning for Visual SLAM (CVPRW)*, Jun. 2018.
25. Jiyoung Lee, Sunok Kim, **Seungryong Kim**, and Kwanghoon Sohn, "Spatiotemporal Attention Based Deep Neural Networks for Emotion Recognition," *IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, Apr. 2018.
26. Kihong Park, **Seungryong Kim**, and Kwanghoon Sohn, "High-precision Depth Estimation with the 3D LiDAR and Stereo Fusion," *IEEE International Conference on Robotics and Automation (ICRA)*, May 2018.
27. **Seungryong Kim**, Dongbo Min, Stephen Lin, and Kwanghoon Sohn, "DCTM: Discrete-Continuous Transformation Matching for Semantic flow," *IEEE International Conference on Computer Vision (ICCV)*, Oct. 2017. (**Oral Presentation**) (2.09% acceptance rate)
28. Kihong Park, **Seungryong Kim**, and Kwanghoon Sohn, "Pedestrian Proposal Generation Using Depth-Aware Scale Estimation," *IEEE International Conference on Image Processing (ICIP)*, Sep. 2017.
29. Sangryul Jeon, **Seungryong Kim**, and Kwanghoon Sohn, "Convolutional Feature Pyramid Fusion via Attention Network," *IEEE International Conference on Image Processing (ICIP)*, Sep. 2017.
30. Somi Jeong, **Seungryong Kim**, Bumsub Ham, and Kwanghoon Sohn, "Convolutional Cost Aggregation for Robust Stereo Matching," *IEEE International Conference on Image Processing (ICIP)*, Sep. 2017.
31. Sunghun Joung, **Seungryong Kim**, Bumsub Ham, and Kwanghoon Sohn, "Unsupervised Stereo Matching Using Correspondence Consistency," *IEEE International Conference on Image Processing (ICIP)*, Sep. 2017.
32. Sungil Choi, **Seungryong Kim**, Kihong Park, and Kwanghoon Sohn, "Multi-Spectral Human Co-Segmentation via Joint Convolutional Neural Networks," *IEEE International Conference on Image Processing (ICIP)*, Sep. 2017.
33. Sunok Kim, Dongbo Min, Bumsub Ham, **Seungryong Kim**, and Kwanghoon Sohn, "Deep Stereo Confidence Prediction for Depth Estimation," *IEEE International Conference on Image Processing (ICIP)*, Sep. 2017.
34. **Seungryong Kim**, Dongbo Min, Bumsub Ham, Sangryul Jeon, Stephen Lin, and Kwanghoon Sohn, "FCSS: Fully Convolutional Self-Similarity for Dense Semantic Correspondence," *IEEE Conf. on Computer Vision Pattern Recognition (CVPR)*, Jul. 2017. (29% acceptance rate)
35. Kihong Park, **Seungryong Kim**, and Kwanghoon Sohn, "Homography Flow for Dense Correspondences," *Asia-Pacific Signal and Information Processing Association Conference (APSIPA)*, Dec. 2016.
36. **Seungryong Kim**, Kihong Park, Kwanghoon Sohn, and Stephen Lin, "Unified Depth Prediction and Intrinsic Image Decomposition from a Single Image via Joint Convolutional Neural Fields," *European Conference on Computer Vision (ECCV)*, Oct. 2016. (**Spotlight Presentation**) (4.7% acceptance rate)
37. **Seungryong Kim**, Dongbo Min, Stephen Lin, and Kwanghoon Sohn, "Deep Self-Convolutional Descriptor for Dense Cross-modal Correspondence," *European Conference on Computer Vision*

(ECCV), Oct. 2016. (26.6% acceptance rate)

38. Hangil Choi, **Seungryong Kim**, Kihong Park, and Kwanghoon Sohn, "Multi-spectral Pedestrian Detection Based on Accumulated Object Proposal with Fully Convolution Network," *IEEE International Conference on Pattern Recognition (ICPR)*, Dec. 2016.
39. **Seungryong Kim**, Dongbo Min, and Kwanghoon Sohn, "ANCC Flow: Adaptive Normalized Cross-Correlation with Evolving Guidance Aggregation for Dense Correspondence Estimation," *IEEE International Conference on Image Processing (ICIP)*, Sep. 2016.
40. Sungil Choi, **Seungryong Kim**, Kihong Park, and Kwanghoon Sohn, "Multilevel Segment Based Dense Correspondence: An Affine Transformation Approach," *Electronic Imaging (EI)*, Feb. 2016.
41. Kihong Park, **Seungryong Kim**, Seungchul Ryu, and Kwanghoon Sohn, "Randomized Global Transformation Approach for Dense Correspondence," *British Machine Vision Conference (BMVC)*, Sep. 2015. (33.6% acceptance rate)
42. Jongin Son, **Seungryong Kim**, and Kwanghoon Sohn, "Fast Affine-invariant Image Matching Based on Global Bhattacharyya Measure with Adaptive Tree," *IEEE International Conference on Image Processing (ICIP)*, Sep. 2015.
43. **Seungryong Kim**, Dongbo Min, Bumsub Ham, Seungchul Ryu, Minh N. Do, and Kwanghoon Sohn, "DASC: Dense Adaptive Self-Correlation Descriptor for Multi-modal and Multi-spectral Correspondence," *IEEE Conf. Computer Vision Pattern Recognition (CVPR)*, Jun. 2015. (28.4% acceptance rate)
44. Kihong Park, Seungchul Ryu, **Seungryong Kim**, and Kwanghoon Sohn, "Statistical Approach for Supervised Codeword Selection," *Electronic Imaging (EI)*, Feb. 2015.
45. Junhyung Kim, Seungchul Ryu, **Seungryong Kim**, and Kwanghoon Sohn, "Robust Stereo Matching Based on Probabilistic Laplacian Propagation with Weighted Mutual Information," *Electronic Imaging (EI)*, Feb. 2015.
46. **Seungryong Kim**, Bumsub Ham, Seungchul Ryu, Seon Joo Kim, and Kwanghoon Sohn, "Robust Stereo Matching Using Probabilistic Laplacian Surface Propagation," *Asian Conference on Computer Vision (ACCV)*, Nov. 2014. (27.9% acceptance rate)
47. **Seungryong Kim**, Seungchul Ryu, Bumsub Ham, Junhyung Kim, and Kwanghoon Sohn, "Local Self-Similarity Frequency Descriptor for Multispectral Feature Matching," *IEEE International Conference on Image Processing (ICIP)*, Oct. 2014.
48. Seungchul Ryu, **Seungryong Kim**, and Kwanghoon Sohn, "Synthesis Quality Prediction Model Based on Distortion Intolerance," *IEEE International Conference on Image Processing (ICIP)*, Oct. 2014.
49. **Seungryong Kim**, Hunjae Yoo, Seungchul Ryu, Bumsub Ham, and Kwanghoon Sohn, "ABFT: Anisotropic Binary Feature Transform Based on Structure Tensor Space," *IEEE International Conference on Image Processing (ICIP)*, Oct. 2013. (Top 10% of accepted paper)
50. **Seungryong Kim**, Hunjae Yoo, and Kwanghoon Sohn, "Robust Corner Detector Based on Corner Candidate Region," *IEEE Conference on Industrial Electronics and Application (ICIEA)*, Jun. 2013.

Domestic Journal
/Conference

Journal: 1 paper, Conference: 7 papers (in Korean)

Patents

US patent: 1, EP patent: 1, Korea patent: 3

1. **Seungryong Kim** et al., "Matching Device and Method between Multi-spectral Images," Korea patent no.: 10-2014-0187297, Dec. 23, 2014.

AWARDS

Outstanding Lecture Award, Korea University, 2021

Award Certification by Korean Ministry of Education, 2021

Honorable Mention Award, Outstanding Research Award, Yonsei University, 2018

Chun-Gang Outstanding Research Award, Chun-Gang Memorial Foundation, 2018

Doctoral Consortium Award, IEEE ICCV, 2017

Honorable Mention Award, Outstanding Research Award, Yonsei University, 2017

Nomination Award, Microsoft Research Asia Fellowship Nomination Award, Microsoft Research, 2016

Runner-Up Award, Hackathon Competition, HYUNDAI Motor Group, 2016

Bronze Award, IEEE Student Paper Contest, IEEE Seoul Section, 2012

Volunteer Award, IEEE Broadcast Technology Society, 2012

Honor Graduation Award, Yonsei University, 2012

Best Award, COEX 2011 Capstone Design Symposium
Best Award, Capstone Design Symposium, Korea University, 2011
Best Award, Creative Research Competition, Yonsei University, 2011

PROFESSIONAL
ACTIVITIES

Member of IEEE, Professional Member of ACM

Publication Chair

- The 1st Workshop and Challenge on Comprehensive Video Understanding in the Wild (CoVieW'18)

Area Chair

- International Conference on 3D Vision (3DV) 2020

Reviewers

- AAAI Conference on Artificial Intelligence (AAAI), 2021
- International Conference on Learning Representations (ICLR), 2021
- Neural Information Processing Systems (NeurIPS), 2020
- European Conference on Computer Vision (ECCV), 2020
- Computer Vision and Pattern Recognition (CVPR), 2020
- AAAI Conference on Artificial Intelligence (AAAI), 2020
- International Conference on Computer Vision (ICCV), 2019
- Computer Vision and Pattern Recognition (CVPR), 2019
- IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)
- IEEE Transactions on Image Processing (TIP)
- IEEE Transactions on Intelligent Transportation Systems (TITS)
- IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)
- IEEE Transactions on Multimedia (TMM)
- IEEE Signal Processing Letters (SPL)
- IEEE Access
- Pattern Recognition (PR)
- Expert Systems with Applications (ESWA)
- International Journal of Remote Sensing (IJRS)

TALKS
MEDIA COVERAGES
SKILL

- **Contrastive Learning for Pixel-Level Representation and Correspondence**

- The Institute of Electronics and Information Engineers (IEIE), 2021
- Korean Computer Vision Forum, 2021
- Image and Signal Processing Summer School, 2021

- **Modeling Spatial Transformations Using Deep Convolutional Neural Networks**

- Korean Conference on Computer Vision (KCCV), 2020
- Ewha Womans University, 2020
- Yonsei University, 2019
- Korea Institute of Science and Technology (KIST), 2019

- **Learning Weakly-supervised Semantic Correspondence and its Applications**

- Daegu Gyeongbuk Institute of Science & Technology (DGIST), 2019

- **Learning Weakly-supervised Semantic Correspondence**

- Korean Conference on Computer Vision (KCCV), 2019

- **LAF-Net: Locally Adaptive Fusion Networks for Stereo Confidence Estimation**

- CVPR Oral Talk, 2019

- **Recurrent Transformer Networks for Semantic Correspondence**

- NeurIPS Spotlight Talk, 2018

- **Learning to Find Semantic Correspondences**

- Switzerland Korean Scientist Seminar, 2019

- **Introduction to Deep Learning**

- HYUNDAI Motor Group, 2018

- **Historical Overview on Deep CNN-based Single Image Super-Resolution**

- 2018 Image and Signal Processing Summer School, The Institute of Electronics and Information Engineers (IEIE), 2018

- **DCTM: Discrete-Continuous Transformation Matching for Semantic Flow**
 - Korean Conference on Computer Vision (KCCV), 2018
 - ICCV Oral Talk, 2017
- **Robust Feature Representation and Regularization for Semantic Correspondence**
 - 2018 Summer Conference, The Institute of Electronics and Information Engineers (IEIE), 2018
 - Fast Campus, 2018
- **DASC Descriptor for Multi-modal and Multi-spectral Correspondence**
 - Ewha Womans University, 2018
- **Unified Depth Prediction and Intrinsic Image Decomposition from a Single Image via Joint Convolutional Neural Fields**
 - Korean Conference on Computer Vision (KCCV), 2017
 - ECCV Spotlight Talk, 2016
- **A deep learning technique for context-aware emotion recognition**
 - TechXplore, 2019
- **The image-matching algorithm that throws the rest out of the window**
 - Yonsei University Research Blog, 2017
- **Matching points between objects of different shapes and styles**
 - Microsoft Research Blog, 2017
- **Collaboration between MSRA and Yonsei University generates computer vision breakthrough**
 - Microsoft Research Blog, 2017

Programming Languages

C/C++, Python, MATLAB, OpenCV, OpenGL

Last Update: Jul. 12, 2021