Shaodi You, Ph.D.

Associate Professor (Universitair Hoofddocent), University of Amsterdam
e-mail: youshaodi@gmail.com; s.you@uva.nl
Research webpage: http://youshaodi.gitbub.io/
Google scholar: https://scholar.google.com/citations?user=DRoHXVMAAAAJ

Projects and funding

Projects and funding

Principle Investigator:
2023-2027 Research on Computer Vision and Perception for Autonomous Driving with Zongmu. (730K EUR)
Deep Learning and Traditional Computer Vision Based Algorithms for ADAS: including self-supervised learning and behavior prediction etc.

Principle Investigator:
2024-2028 Event prediction in dynamic scenes using vision and language model. Chinese Scholarship Council and UvA top-up for a full UvA PhD for four years.

Principle Investigator:
2024-2028 Human behavior prediction in dynamic scenes using generative models. Chinese Scholarship Council and UvA top-up for a full UvA PhD for four years.

Principle Investigator:
2023-2027 Robust Vision in Adversarial Conditions. Chinese Scholarship Council and UvA top-up for a full UvA PhD for four years.

Principle Investigator:
2023-2025, Vision Based Road Topology Generation, Guangzhou Elite Project and UvA top-up for 18 months UvA visiting PhD.

Principle Investigator:
2023-2024 Deep Hyperspectral Vision in The Wild, Chinese Scholarship Council and UvA top-up for one year visiting PhD.

Principle Investigator:
2023-2024 Road Anomaly Detection, Chinese Scholarship Council and UvA top-up for one year visiting PhD.

Principle Investigator:
2022-2023 Human Intention Prediction, Chinese Scholarship Council and UvA top-up for one year visiting PhD.

Principle Investigator:
2019-2023 Research on Physics based computer vision. UvA starting up package. Full UvA PhD for four years (350K EUR)

Principle Investigator:
2018-2019 Global Co-Investment: Strategic project on transfer Australian technology to Chinese products. (15K AUD)

Principle Investigator:
2017-2018 Research on Computer Vision and Perception for Autonomous Driving with Zongmu. (200K AUD)
Deep Learning and Traditional Computer Vision Based Algorithms for ADAS: including Semantic Segmentation, Multi-task Detection, Underground SLAM, Panoramic Image Stitching and etc.

Principle Investigator:
2018-2019 NII-Data61 Joint Research Funding. 2018-2019(30K AUD)

Member:
2015-2018 Visual Processing for Bionic Vision. (430K AUD) Visual processing to enable an extremely down-sampled and monochronic processing of natural scenes for blind people: salient object detection, color-to-gray processing, and image filtering.

Supervision

Present students

PhDs:
Hanxi Yin, UvA
Jincheng Li, UvA
Chenxi Shen, Kyushu University (with Prof. Hiroshi Kawasaki)
Huanglu Wen, Beijing Institute of Technology (with Prof. Ying Fu, 2020-)
Fan Zhang, Beijing Institute of Technology (with Prof. Ying Fu, 2019-)

Research Master:
Filipe Laitenberger, UvA
Tianyi Zhao, Nanjing University (with assoc. Prof. Qiu Shen)
Cas Steigstra, UvA
Max de Redelijkheid, UvA

Alumni

Qi Bi, PhD UvA, 2025
Zhuoran Du, visiting PhD from BUJT, 2024
Vera Hessels, Bachelor UvA 2024
Thomas Koene, Master UvA, 2024
Pieter Bijl, Master UvA, 2024
Andreas Giorkatzi, Master UvA, 2024

Li Xu, UvA, PhD visiting, 2024
Wei Wang, PhD UvA, 2023
Radu Cosma, Master UvA, 2023
Bart van Vulpen, Master UvA, 2023
Loïc Macken, Master VU, 2023
Maarteen Burger, Master UvA, 2023
Ankit Ankit, Master UvA, 2023
Tianqi Ren, Bachelor Nanjing Uni. 2023
Yahui Zhang, PhD UvA, 2022
Kevin Waller, Master UvA, 2022
Bob Leynse, Master UvA, 2022
Jeroen van Wely, Master UvA, 2022
Niek IJzerman, Master UvA, 2022
Alexis Guillot, Master UvA, 2021
Tian Qi, Ren, Master Nanjing U, 2022 (with Prof. Qiu Shen)
Linwei Cheng, Master, BIT 2022 (with Prof. Ying Fu)
Yuxing Huang, Master Nanjing U, 2022 (with Prof. Qiu Shen)
Sun Cheng, Master, U Kyushu 2022 (with Prof. Kawasaki)
Joseph Groot Kormelink, Master, UvA,2021
Daniël den Heijer, Master, UvA,2021
Ruihan Sun, Research Master, UvA,2021
Lando de Weerdt, Research Master, UvA,2021
Paul-Christian Stoy, Research Master, UvA,2021
Adam Horvath-Reparszky, Research Master, UvA,2021
Fan Zhang, Research Master, BIT2020, (with Prof. Ying Fu, continued as PhD)
Ruth Wijmer, Research Master, UvA,2020
Regina, Kargar, Research Master, UvA,2020
Maximilian Schlögel, Research Master, UvA,2020
Ryota Yoshihashi, PhD, U Tokyo (with AProf. Rei Kawakami)
Wen Shao, Master, U Tokyo (with AProf. Rei Kawakami)
Xiang Wang, PhD, Tsinghua (with AProf. Huimin Ma)
Ziang Cheng, Master, ANU (continued as PhD at ANU)
David Feng, PhD, ANU (now at Seeing Machine)
Xiudong Wang, PhD, ANU (visiting student from Tsinghua)
Xiaofeng Han, PhD, ANU (visiting student from NJUST)
Lu Liu, PhD NUS (with Assoc. Prof. Robby T. Tan)
Zhixiang Hao, PhD, BUAA (now at SenseTime)
Junxuan Li, Master, ANU (continue as PhD)
Yinan Wang, Master, U Tokyo (with Asst. Prof. Rei Kawakami)
Kenta Moriwaki, Master, U Tokyo (with Asst. Prof. Rei Kawakami)
Chenyao Qian, Master, ANU (now at Meitu)
Tu Tuan Trinh, Master, U Tokyo
Zhichen Zhao, Master, Tsinghua (Now at Face++)
Seiichirou Fukuta, Master, U Tokyo
Oliver Johnson, Bachelor with Honor ANU, University Medalist
Yicong Hong, Bachelor with Honor ANU
Yuxuan Long, Bachelor with Honor ANU
Wen Shao, Bechelor with Honor, U Tokyo (continued as Master)
Xinyi Liu, Bachelor with Honor, ANU

Kunming Li, Bachelor with Honor, ANU
Riku Shigematsu, Bachelor with Honor, visiting from U Tokyo
Zhipeng Bao, Bachelor with Honor ANU, continued as PhD at CMU

Teaching

Courses	2025 Automobile Robots (UvA, Coordinator, Lectuer)
	2024 Vision for Autonomes Robots (UvA, New, Coordinator, Lectuer)
	2024 Automobile Robots (UvA, Coordinator, Lectuer)
	2023 Computer Vision 1 (UvA, Coordinator, Lectuer)
	2023 Automobile Robots (UvA, Lectuer)
	2022 Computer Vision 1 (UvA, Coordinator, Lectuer)
	2022 Automobile Robots (UvA, Lectuer)
	2021 Computer Vision 1 (UvA, Coordinator, Lectuer)
	2021 Automobile Robots (UvA, Lectuer)
	2020 Computer Vision 1 (UvA, Coordinator, Lectuer)
	2020 Automobile Robots (UvA, Guest Lectuer)
	2019 Computer Vision 1 (UvA, Lecturer)
	2018 Computer Vision (ANU, ENGN4528,ENGN6528, Lecturer)
	2018 Advanced Research Project (ANU, COMP8800, Lecturer)
	2018 Individual Project (ANU, ENGN4200, Lecturer)
	2017 Robotics (ANU, ENGN4627, Guest Lecturer)
	2017 Data Analysis (ANU, ENG8735, Guest Lecturer)
	2017 Advanced Research Project (ANU, COMP8800, Lecturer)
	2017 Individual Project (ANU, ENGN4200, Lecturer)
	2016 Robotics (ANU, ENGN4627, Guest Lecturer)
	2016 Document Analysis (ANU, COMP4650, Lecturer)
	2016 Individual Project (ANU, ENGN4200, Lecturer)
Services	2022-present Educational Committee (OC), Master and Bachelor of AI, UvA
	2020-2022 Educational contact person, computer vision research group, UvA

Community services

Journal Editor	Associate editor, International Journal on Computer Vision, 2022 - present
	Leading guest editor, International Journal on Computer Vision special issue on Physics Based Vision meets Deep Learning, 2021-2022
Conference organizer	Area Chair, International Conference on Computer Vision, ICCV2025
	Area Chair, Computer Vision, and Pattern Recognition, CVPR2025

Area Chair, Neural Information Processing Symposium, NeurIPS2024

Area Chair, European Conference on Computer Vision, ECCV2024

Leading Program Chair, CVPR Joint Workshop: Physics Based Vision meets Deep Learning and Hyperspectral City Challenge, 2024

Area Chair, Winter Conference on Applications of Computer Vision, WACV2024

Area Chair, Computer Vision, and Pattern Recognition, CVPR2023

Area Chair, Neural Information Processing Symposium, NeurIPS2023

Area Chair, Computer Vision, and Pattern Recognition, CVPR2022

Area Chair, European Conference on Computer Vision, ECCV 2022

Area Chair, Neural Information Processing Symposium, NeurIPS2022

General Chair, Netherlands Conference on Computer Vision, NCCV2022

Leading Program Chair, ICCV Joint Workshop: Physics Based Vision meets Deep Learning and Hyperspectral City Challenge, 2021

Area Chair, Machine Vision Application, MVA2021

Board Member, European Lab for Learning and Intelligent Systems (ELLIS), Unit Amsterdam. 2020 – present.

Area Chair, European Conference on Computer Vision, Glasgow, 2020 ECCV2020

Program Chair, ICCV Joint Workshop: Physics Based Vision meets Deep Learning and Hyperspectral City Challenge, Soule, Korea. 2019 PBDL2019

Leading Program Chair, ICCV Joint Workshop: 3rd ICCV Workshop on e-Heritage and Dunhuang Challenge. Soule, Korea. 2019 www.eheritage-ws.org/

Area Chair, The 9 th Pacific-Rim Symposium on Image and Video Technology (PSIVT), Sydney, 2019.

General Chair, 2018 The IEEE International Conference on Digital Image Computing: Techniques and Applications (DICTA). Canberra, Australia.

Workshop Chair, 2018 Asian Conference on Computer Vision. (ACCV). Perth, Australia. Review and make decision for workshop proposals. Manage and running all the 10+ workshops.

Leading Program Chair, ICCV Joint Workshop: Physics Based Vision meets Deep Learning, Venice, Italy. PBDL2017

2014 International Conference on 3D Vision (3DV2014). Tokyo, Japan.

Reviewing

IEEE Transaction on Pattern Recognition and Machine Intelligence (TPAMI)
International Journal on Computer Vision (IJCV)
IEEE Transaction on Image Processing (TIP)
ACM SIGGRAPH
IEEE Conference on Computer Vision and Pattern Recognition (CVPR)
International Computer on Computer Vision (ICCV)
European Conference on Computer Vision (ECCV)
International Conference on Computational Photography (ICCP)
International Joint Conference on Artificial Intelligence (IJCAI)
AAAI Conference on Artificial Intelligence (AAAI)

Research organizations

2020 – present: board member of ELLIS UvA node

2016-2019, Chair of Computer Society, ACT Section, Australia, IEEE.

-IEEE R10, Outstanding Small Section Award, 2017

2013 – present: IEEE senior member

Invited Talks

Physics Based Vision in The AI Era, Sapienza University of Rome, Rome, Italy, Jul. 2024.

Physics Based Vision in Adversarial Environment, Google, New York City, USA, Dec. 2023.

Physics Based Vision in Adversarial Environment, Google Research, Mountain View, USA, Jun. 2022.

Physics Based Vision in The Deep Learning Era, Google Research, Mountain View, USA, Jan. 2020.

Physics Based Vision in The Deep Learning Era, Google X, Mountain View, USA, Jan. 2020.

Physics Based Vision in The Deep Learning Era, Nuctech, Beijing China, Oct. 2019

Keynote: ACCV Workshop on Learning and Inference Methods for High Performance Imaging, Dec. 2018

Tutorial Speaker: Classic VS Deep Vision. Perth, Dec. ACCV 2018.

Physic Based Vision meets Deep Learning, International Workshop on Machine Vision Application, Xi'an, June. 2018

Physic Based Vision meets Deep Learning, Nanjing University, Apr. 2018

Physic Based Vision meets Deep Learning, ShanghaiTech University, Apr. 2018

Physic Based Vision meets Deep Learning, Jiangsu University, Apr. 2018

Physic Based Vision meets Deep Learning, Tsinghua University Shenzhen Research Campus, Apr. 2018

Physic Based Vision meets Deep Learning, Harbin Institute of Technology Shenzhen Research Campus, Apr. 2018

Smart Computational Imaging, Nanjing University, Apr. 2017

Smart Computational Imaging, Jiangnan University, Apr. 2017

A Multi-view Light Field Camera from a Single Lens, Microsoft Research Asia, Sep, 2016

Vision in Bad Weather and Prosthetic Vision, Peking University, Sep, 2016

Vision in Bad Weather and Prosthetic Vision, Nankai University, Sep, 2016

Prosthetic Vision and Artificial Vision, Microsoft Research Asia, Aug, 2016

Vision in Bad Weather and Prosthetic Vision, Microsoft Research Asia, Aug, 2016

Vision in Bad Weather and Prosthetic Vision, Tsinghua University, Aug, 2016

Vision in Bad Weather and Prosthetic Vision, Jiangnan University, Aug. 2016

Adherent Raindrop Detection and Removal in Video. Meeting on Image Recognition and Understanding (MIRU 2013), Japan.

Awards and Honors

2022.10	Google Research Award, 10,000 USD
2021.10	IJRS best paper award (The Len Curtis Award), Shao, W., Kawakami, R., Yoshihashi, R., You, S., Kawase, H. and Naemura, T., 2020. "Cattle detection and counting in UAV images based on convolutional neural networks", published Open Access in the International Journal of Remote Sensing.
2017.11	Best Paper Award. David Feng, Nick Barnes, Shaodi You: HOSO: Histogram Of Surface Orientation for RGB-D Salient Object Detection. The International Conference on Digital Image Computing: Techniques and Applications, DICTA 2017
2017.9	Digital, National Facilities & Collections Awards 2017
	Science Excellence: Vision processing for the Bionic Eye.
2017.5	iAWARDS 2017, Research and Development Project of the Year:
	Vision Processing for Bionic Eye. Australian Capital Territory.
	Australian Information Industry Association
2017.5	iAWARDS 2017, Consumer Markets:
	Vision Processing for Bionic Eye. Australian Capital Territory.
	Australian Information Industry Association
2013.4 - 2015.9	Japanese Government (Monbunkagakusho: MEXT) Scholarship - University referenced (Rank 1 among applicants) - Allowance 5,328,000 JPY (49,000 USD) - Full tuition fee coverage - Research funding 3,000,000 JPY (27,000 USD)
2013.4 -2016.3	SCAT Scholarship - Allowance 3,600,000 JPY (33,000 USD).
2013.4 -2014.3	SEUT Doctoral Student Special Incentives Program - Allowance 1,800,000 JPY (16,000 AUD).

2010.4 -2013.3	Panasonic Scholarship - Allowance 6,120,000 JPY (56,000 AUD) Granted - Full tuition fee coverage - Six grants in China per year
2009.7	Best Thesis, Tsinghua University - Rank 1 / 90
2008.10	Scholarship for Academic Excellence(Class III), Tsinghua University
2006.12	Scholarship for Academic Excellence(Class II), Tsinghua University
2005.6	Honorable mention in 2004/2005 "First Step to Nobel Prize in Physics", Polish Academy of Science. Research Paper: Why are some mirage inverted.
2004.9	First Prize, Chinese Physics Olympic Contest (province-wide) - Eligibility for direct college admission without national standard exam.
2004.9	Second Prize, Chinese Chemistry Olympic Contest (province -wide) - Eligibility for direct college admission without national standard exam.
2004.5	First Prize, Chinese Biology Olympic Contest (province-wide) - Eligibility for direct college admission without national standard exam.
2003.9	Second Prize, Chinese Mathematics Olympic Contest (province-wide) - Eligibility for direct college admission without national standard exam.

Work Experience

2019.9-present	Assistant Professor with Tenure, University of Amsterdam, The Netherlands - Computer Vision Research Group
2020.9-present	Guest Associate Professor, Kyushu University, Japan
2019.11-2020.1	Visiting Researcher, Microsoft Research, Redmond, USA - Strategic Research Prototyping on Humanoids
2018.1-2019.8	Senior Research Scientist, Data61, CSIRO, Australia - Computer vision group - Projects: Autonomous Driving (principle investigator), Bionic Vision (member), Non-rigid 3D (member)
2018.2-2019.8	Senior Adjunct Lecturer, Australian National University - Teaching in School of Engineering and Computer Science
2015.9-2017.12	Research Scientist, Data61, CSIRO, Australia - Computer vision group - Projects: Autonomous Driving (principle investigator), Bionic Vision (member), Non-rigid 3D (member) - Tenure Position
2015.10-2018.1	Adjunct Lecturer, Australian National University - Teaching in School of Engineering and Computer Science - Supervising 9 Ph.D. students, 5 master students.
2013.2-2013.3	Visiting Staff, Multimedia and Geometry Group, Utrecht University, The Netherlands - Working on video enhancement
2013.4-2015.9	Research Assistant, Global Creative Leader Program, The University of

Tokyo
- Bayon Digital Archiving Project, Cambodia
- Virtual Asuka-kyo project, Nara, Japan
- 3D Preah Vehear project, Cambodia
- Digital Archiving of 3-11 Earthquake project, Japan
- Coordinating international and domestic research activities
- Mentoring students

2010.4-2010.9 Research Student, Computer Vision Lab, The University of Tokyo
- Research topic algebraic surface fitting
- Digital Archiving Khufu Boat project, Egypt
- Journal paper in Neural Computing

2008.1-2010.3 Research Assistant, 3D Vision Lab, Tsinghua University, China
- Research topic: manifold learning
- Journal paper in Pattern Recognition. Three papers published.

Education

2012.10-2015.9 Ph.D. of Engineering, Computer Vision Lab. The University of Tokyo, Japan.
- Full Scholarship (Mext, Global Creative Leader)
- Overall GPA: 4/4 .
- Supervisors: Prof. Katsushi Ikeuchi , Asst. Prof. Robby T. Tan, Asst. Prof. Rei Kawakami
- Topics: robust outdoor vision, rainy scenes, computational photometry, 3D shape modeling

2010.4-2012.9 Master of Engineering, Computer Vision Lab. The University of Tokyo, Japan
- Full Scholarship (Panasonic)
- Overall GPA: 3.93/4

2005.8-2009.7 Bachelor of Engineering, Department of Electrical Engineering, Tsinghua University, China.
- Advanced Courses in Math and Physics (sub major)
- Recommend for direct admission (free of entrance exam)
- Overall GPA: 88.4/100 (3.71/4)

2002.8-2005.7 Experimental High School Attached to Beijing Normal University, China
- National Experimental Science Program directly by The Ministry of Education. 80 students in China per year.
- Eligible for enrollment in any university in China without exam.

Patents

[P4] Guoxing Ma, Yu Han, Jianing Sun, Yi Zhao, Fengyu Yang, Yueqin Gu and Shaodi You, “An Automatic Surveillance System for Bracket Safety Inspection in Construction Site.” (Chinese Patent No. 201710799023.7)

[P3] A. Robles-Kelly, “Hyperspectral Image Sensor”, Australian Provisional Patent Application No 2016900098, 2016.

[P2] A System and A Method for Automatic Inspection of Protection Equipment and Operational Capability for Workers' Safety.（Chinese Patent No. 201610279988.9）

[P1] An Automatic System and Methodology for Dust Pollution Monitoring in Construction Site using Image Captured by UAV.（Chinese Patent No. 201610489505.8）

Selected Publications (Peer reviewed)

Journals Impact factor are from 2016 InCites Journal Citation Report

Journals - Published

[J42] Y Zhang, S You, S Karaoglu, T Gevers, 3D human pose estimation and action recognition using fisheye cameras: A survey and benchmark, Pattern Recognition, 2025

[J41] L Xu, S You, G He, Y Li, Pedestrian-Vehicle Information Modulation for Pedestrian Crossing Intention Prediction, IEEE Transactions on Intelligent Vehicles, 2024

[J40] W Wang, **S You**, S Karaoglu, T Gevers, Kinship similarity for open sets, Pattern Recognition 2024

[J39] T Zhang, Y Fu, L Huang, S Li, **S You**, C Yan, RGB‐guided hyperspectral image super‐resolution with deep progressive learning, CAAI Transactions on Intelligence Technology 2024

[J38] Q Bi, **S You**, T Gevers, Interactive learning of intrinsic and extrinsic properties for all-day semantic segmentation, IEEE Transactions on Image Processing, 2023

[J37] W Wang, **S You**, S Karaoglu, T Gevers, A survey on kinship verification, Neurocomputing 525, 1-28, 2023

[J36] Q Bi, **S You**, W Ji, T Gevers, Learning rotation equivalent scene representation from instance-level semantics: A novel top-down perspective, Computer Vision and Image Understanding 229, 103635, 2023

[J35] T Yu, C Lin, S Zhang, C Wang, X Ding, H An, X Liu, T Qu, L Wan, **S You**, Artificial Intelligence for Dunhuang Cultural Heritage Protection: The Project and the Dataset, International Journal of Computer Vision 130 (11), 2646-2673, 2022

[J34] Y Liu, Y Li, S You, F Lu, Semantic guided single image reflection removal, ACM Transactions on Multimedia Computing, Communications and Applications, 2022

[J33] Y Zhang, **S You**, S Karaoglu, T Gevers Multi-person 3D pose estimation from a single image captured by a fisheye camera, Computer Vision and Image Understanding 222, 103505, 2022

[J32] L Chen, Y Fu, **S You**, H Liu, Hybrid supervised instance segmentation by learning label noise suppression, Neurocomputing 496, 131-146

[J31] Y Fu, Y Hong, L Chen, **S You**, LE-GAN: Unsupervised low-light image enhancement network using attention module and identity invariant loss, Knowledge-Based Systems 240, 108010, 2022

[J30] W Wang, S You, Y Zhang, S Karaoglu, T Gevers, Identity Invariant Age Transfer for Kinship Verification of Child-Adult Images, Computer Vision and Image Understanding, 2022

[J29] C Lin, S Zhang, **S You**, X Liu, Z Zhu, Real-time foreground object segmentation networks using long and short skip connections, Information Sciences 571, 543-559, 2021

[J28] H Wen, **S You**, Y Fu, Cross-modal dynamic convolution for multi-modal emotion recognition, Journal of Visual Communication and Image Representation 78, 103178, 2021

[J27] H Wen, **S You**, Y Fu, Cross-modal context-gated convolution for multi-modal sentiment analysis, Pattern Recognition Letters 146, 252-259, 2021

[J26] Y Fu, Z Liang, **S You**, Bidirectional 3D quasi-recurrent neural network for hyperspectral image super-resolution, IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2021

[J25] L Chen, Y Fu, **S You**, H Liu, Efficient hybrid supervision for instance segmentation in aerial images, Remote Sensing 13 (2), 252, 2021

[J24] L Gu, X Zhang, **S You**, S Zhao, Z Liu, T Harada, Semi-Supervised Learning in Medical Images Through Graph-Embedded Random Forest, Frontiers in Neuroinformatics 14, 2021

[J23] Linwei Chen, Ying Fu, **Shaodi You**, Hongzhe Liu, Efficient Hybrid Supervision for Instance Segmentation in Aerial Images Remote Sensing 13 (2), 252

[J22] Cong Lin, Shijie Zhang, **Shaodi You***, Xiaoxiang Liu, Zhiyu Zhu, Real-time Foreground Object Segmentation Networks using Long and Short Skip Connections, Information Sciences 2021.

[J21] Ying Fu, Zhiyuan Liang, **Shaodi You**, Bidirectional 3D Quasi-Recurrent Neural Network for Hyperspectral Image Super-Resolution, IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2021.

[J20] Huanglu Wen, **Shaodi You**, Ying Fu, Cross-modal Context-gated Convolution for Multi-modal Sentiment Analysis, Pattern Recognition Letters, 2021

[J19] Xiang Wang, Huimin Ma, **Shaodi You**, Deep Clurstering for Weakly-Supervised Semantic Segmentation in Complex Object-Clustered Scenes. Neurocomputing, 2019. Accepted. Impact factor: 3.32.

[J18] Yinan Wang, Ryota Yoshihashi, Rei Kawakami, **Shaodi You**, Tohru Harano, Masahiko Ito, Katsura Komagome, Makoto Iida, Takeshi Naemura. Unsupervised anomaly detection with compact deep features for wind turbine blade images taken by a drone, IPSJ Transactions on Computer Vision and Applications. Issue 11, pp:1-3. 2019.

[J17] Wen Shao, Rei Kawakami, Ryota Yoshihashi, **Shaodi You**, Hidemichi Kawase and Takeshi Naemura, Cattle detection and counting in UAV images based on convolutional neural networks, International Journal of Remote Sensing. Impact factor: 1.78. 2019

[J16] Hao Zhu, Xiaoming Sun, Qi Zhang, Qing Wang, Antonio Robles-Kelly, Hongdong Li and **Shaodi You**. Full View Optical Flow Estimation Leveraged from Light Field Superpixel. IEEE Transaction on Computational Imaging, 2019.

[J15] Xiudong Wang, Yali Li, **Shaodi You**, Hongdong Li, and Shengjin Wang. Unidirectional Representation Based Efficient Dictionary Learning, IEEE Transactions on Circuits and Systems for Video Technology, 2018. Impact factor: 3.6.

[J14] Ryota Yoshihashi; Tu Tuan Trinh; Rei Kawakami; **Shaodi You**; Makoto Iida; Takeshi Naemura, Pedestrian Detection with Motion Features via Two-stream ConvNets, IPSJ Machine Vision and Application. 2018, Impact factor: 1.3. [pdf]

[J13] Xiaofeng Han, Jianfeng Lu, Chunxia Zhao, **Shaodi You** and Hongdong Li, *Semi-supervised and Weakly-supervised Road Detection based on Generative Adversarial Networks*, IEEE Signal Processing Letters. Volume: 25, Issue:4, pp: 551-555. 2018. Impact factor: 2.5.

[J12] **Shaodi You**, Yasuyuki Matsushita, Sudipta Sinha, Yusuke Bou and Katsushi Ikeuchi. *Origami: Multi-view Rectification of Folded Documents*. IEEE Transactions on Pattern Analysis and Machine Intelligence (**TPAMI**), 2018, Vol.40, Issue 2, pp:505-511. Impact factor: 9.5 [pdf] [webpage]. TPAMI is the most esteemed journal in computer vision.

[J11] Xiang Wang, Huimin Ma, **Shaodi You** and Xiaozhi Chen, Edge Preserving and Multi-Scale Contextual Neural Network for Salient Object Detection, IEEE Trans. on Image Processing (TIP). Volume: 27, Issue:1, pp: 121-134. 2018. Impact factor: 5.1. 10.1109/**TIP**.2017.2756825 [pdf]

[J10] **Shaodi You**, Robby T. Tan, Rei Kawakami, Yasuhiro Mukaigawa and Katsushi Ikeuchi. *Adherent Raindrop in Video, Modeling, Detection and Removal*. IEEE Transactions on Pattern

Analysis and Machine Intelligence (**TPAMI**), 2016. Impact factor: 9.5. [pdf] [webpage]. TPAMI is the most esteemed journal in computer vision.

[J9] **Shaodi You**, Think Locally, Fit Globally, Robust and Fast Surface Matching via Algebraic Surface Fitting, Neurocomputing, Special Issue on Multimodal Vision, Elsevier 2016. Impact factor: 3.3, Accepted. [pdf]

[J8] **Shaodi You** and Huimin Ma. Manifold Topological Multi-Resolution Analysis Method. Pattern Recognition, Volume 44, Issue 8, August 2011, Pages 1629-1648. Impact factor: 4.6. [pdf]

[J7] Yu Li, **Shaodi You**, Michael Brown and Robby T. Tan, *Visibility Enhancement in Scattering Media Survey and Benchmark*, CVIU, Volume 165, December 2017, Pages 1-16. Impact factor: 2.5. [pdf]

[J6] Feng Lu, Lei He, **Shaodi You**, Zhixiang Hao, Identifying Surface BRDF from a Single 4D Light Field Image via Deep Neural Network, IEEE Journal on Selected Topics in Singal Processing, Impact factor (2017): 5.3. Vol 11, Issue 7, pp 1047-1057, Doi: 10.1109/JSTSP.2017.2728001. [pdf]

[J5] Diming Zhang, **Shaodi You**, iFlask: Isolate Flask Security System From Dangerous Execution Environment by Using ARM TrustZone, Future Generation Computer Systems. Impact factor: 4.0. Accepted.

[J4] Diming Zhamg, Fei Xue, Hao Huang and **Shaodi You**, VBMq: Pursuit Baremetal Perf ormance by Embracing Block I/O Parallelism in Virtualization, Frontier of Computer Science. Accepted. Impact factor: 1.0. 2018, 12 (5): 873-886 [pdf]

[J3] Jingjie Zhang, Yu Han, Jiayue Yao, **Shaodi You**, Design and Implementation of Automatic Inspection System for Safety Equipment for Construction Workers, Construction Techonology (in Chinese), accepted, to appear in 2018.

[J2] Guoxin Ma, Yu Han, Jianfei Lu, Jiayue Yao, **Shaodi You**, Design and Implementation of Automatic Monitoring System for Constructional Fugitive Dust Pollution Sources Based on UAV, Environment Monitoring of China (in Chinese), Vol. 34, No. 1, pp: 151-156. 2018.

[J1] Yu Han, Jingjie Zhang, Hao Sun, Jiayue Yao, **Shaodi You**, Design and implementation of intelligent safety inspection system for construction workers based on image recognition, Journal of Safety Science and Technology (in Chinese), Vol. 12 No. 10, pp:142 – 148. 2018

Conference paper

[C46] Q Bi, **S You**, T Gevers, Generalized Foggy-Scene Semantic Segmentation by Frequency Decoupling, CVPR workshop on Physics Based Vision meets Deep Learning, CVPR-W 2024

[C45] T Ren, Q Shen, Y Fu, **S You**, Point-Supervised Semantic Segmentation of Natural Scenes via Hyperspectral Imaging, CVPR workshop on Physics Based Vision meets Deep Learning, CVPR-W 2024

[C44] F Zhang, **S You**, Y Li, Y Fu, Atlantis: Enabling Underwater Depth Estimation with Stable Diffusion, CVPR 2024 (Spotlight)

[C43] Q Bi, **S You**, T Gevers, Learning Generalized Segmentation for Foggy-scenes by Bi-directional Wavelet Guidance, AAAI 2024.

[C42] Q Bi, **S You**, T Gevers, Learning Content-enhanced Mask Transformer for Domain Generalized Urban-Scene Segmentation, AAAI 2024.

[C41] F Zhang, S You, Y Li, Y Fu, Learning Rain Location Prior for Nighttime Deraining

Proceedings of the IEEE/CVF International Conference on Computer Vision (ICCV) 2023.

[C40] Y Zhang, S You, S Karaoglu, T Gevers, Pose Guided Human Motion Transfer by Exploiting 2D and 3D Information, 2022 International Conference on 3D Vision (3DV), 587-595, 2022

[C39] F Zhang, **S You**, Y Li, Y Fu, HSI-Guided Intrinsic Image Decomposition for Outdoor Scenes, Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshop,

2022

[C38] Y Zhang, **S You**, T Gevers, Orthographic Projection Linear Regression for Single Image 3D Human Pose Estimation, 2020 25th International Conference on Pattern Recognition (ICPR), 8109-8116, 2021

[C37] Y Huang, Q Shen, Y Fu, S You, Weakly-supervised semantic segmentation in cityscape via hyperspectral image, Proceedings of the IEEE/CVF International Conference on Computer Vision Workshop, 2021

[C36] R Wijma, **S You**, Y Li, Multi-Level Adaptive Separable Convolution for Large-Motion Video Frame Interpolation, Proceedings of the IEEE/CVF International Conference on Computer Vision Workshop, 2021

[C35] TH Zieng Cui, Guo-Jun Qi, Lin Gu*, **Shaodi You**, Zenghui Zhang, Multitask AET with Orthogonal Tangent Regularity for Dark Object Detection, International Conference on Computer Vision, 2021

[C34] F Zhang, Y Li, **S You**, Y Fu, Learning temporal consistency for low light video enhancement from single images, Proceedings of the IEEE/CVF conference on computer vision and pattern recognition, 2021.

[C33] Y Zhang, **S You**, T Gevers, Automatic Calibration of the Fisheye Camera for Egocentric 3D Human Pose Estimation From a Single Image, Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision, 2021

[C32] W Wang, **S You** and T Gevers, Kinship Identification through Joint Learning Using Kinship Verification Ensemble, ECCV 2020.

[C31] Yunfei Liu, Yu Li, **Shaodi You** and Feng Lu, Unsupervised Learning for Intrinsic Image Decomposition from a Single Image, CVPR 2020.

[C30] J Li, C Nguyen and S You, Temporal 3D Fully Connected Network for Water-Hazard Detection. Digital Image Computing: Techniques and Applications (DICTA), 2019.

[C29] Zhipeng Bao, **Shaodi You** and Zhenglu Yang, Single-Image Facial Expression Recognition Using Deep 3D Re-Centralization. ICCV 2019 Workshop.

[C28] Zhixiang Hao, **Shaodi You**, Yu Li, Kunming Li and Feng Lu, Learning from Synthetic Photorealistic Raindrop for Single Image Raindrop Removal. ICCV 2019 Workshop.

[C27] Ziang Cheng, Yinqiang Zheng, Sato Imari and **Shaodi You**, Intrinsic Decomposition with Near Infrared Priors. Submitted to International Conference on Computer Vision 2019. (**ICCV2019**).

[C26] Rei Kawakami, Ryota Yoshihashi, Seiichiro Fukuda, **Shaodi You**, Makoto Iida and Takeshi Naemura, Cross-connected Networks for Multi-task Learning of Detection and Segmentation. IEEE International Conference on Image Processing, 2019.

[C25] Junxuan Li, Antonio Robles-Kelly, **Shaodi You** and Yasuyuki Matushita, Learning to Minify Photometric Stereo. IEEE Conference on Computer Vision and Pattern Recognition 2019. (**CVPR2019**).

[C24] Ryota Yoshihashi, Rei Kawakami and **Shaodi You**, Classification-Reconstruction Learning for Open-Set Recognition. Submitted to IEEE Conference on Computer Vision and Pattern Recognition 2019. (**CVPR2019**).

[C23] Lu Liu, Robby T. Tan and **Shaodi You**, Loss Guided Activation for Action Recognition in Still Images, Asian Conference on Computer Vision, **ACCV2018**.

[C22] Weixuan Sun, **Shaodi You**, Janine Walker, Kunming Li and Nick Barnes, Salient Structure: Dataset and Benchmark. **DICTA2018**.

[C21] Kaiyue Lu, **Shaodi You** and Nick Barnes, Deep Image Smoothing based on Texture and Structure Guidance. European Conference on Computer Vision 2018, **ECCV2018**. Accept rate <25%.

[C20] Xiaofeng Han, Chuong Nyugen, **Shaodi You** and Jianfei Lu, Single Image Water Hazard Detection using FCN with Reflection Attention Units. European Conference on Computer Vision

2018, **ECCV2018**. Accept rate <25%.

[C19] Zhixiang Hao, Yu Li, **Shaodi You** and Feng Lu, Detail Preserving Depth Estimation from a Single Image using Attention Guided Networks. 3D Vision, 2018 (**3DV2018**).

[C18] Hongru Liang, Haozheng Wang, **Shaodi You**, Jin-Mao Wei, and Zhenglu Yang. JTAV: Jointly Learning Social Media Content Representation by Fusing Textual, Acoustic, and Visual Features. The 27th International Conference on Computational Linguistics (**COLING 2018**).

[C17] Junxuan Li, **Shaodi You**, and Antonio Robles-Kelly. A Frequency Domain Neural Network for Fast Image Super-resolution, International Joint Conference on Neural Networks. **IJCNN 2018**, oral presentation. [pdf]

[C16] Xiang Wang, **Shaodi You**, Huimin Ma and Xi Li, Weakly-Supervised Semantic Segmentation by Iteratively Mining Common Object Features, IEEE Computer Society Conference on Computer Vision and Pattern Recognition. **CVPR 2018**. Accept rate <25% [pdf]

[C15] Zhichen Zhao, Huimin Ma, **Shaodi You**, Single Image Action Recognition via Sermantic Part Actions, International Conference on Computer Vision, **ICCV 2017**. [pdf][webpage]

[C14] Shijie Zhang, Lizhen Qu, **Shaodi You**, Zhenglu Yang and Jiawan Zhang, Automatic Generation of Grounded Visual Questions, International Joint Conference on Artificial Intelligence, **IJCAI 2017**. Accept rate <25%. [pdf]

[C13] Kaiyue Lu, **Shaodi You**, Nick Barnes, Double-Guided Filtering: Image Smoothing with Structure and Texture Guidance, The International Conference on Digital Image Computing: Techniques and Applications, **DICTA 2017**, oral presentation. [pdf]

[C12] David Feng, **Shaodi You**, Nick Barnes, HOSO: Histogram Of Surface Orientation for RGB-D Salient Object Detection. The International Conference on Digital Image Computing: Techniques and Applications, **DICTA 2017**, oral presentation. [pdf]

[C11] Junxuan Li, **Shaodi You**, Antonio Robles-Kelly, Stereo Super-resolution via a Deep Convolutional Network. The International Conference on Digital Image Computing: Techniques and Applications, **DICTA 2017**, oral presentation. [pdf]

[C10] Changkun Ye, Huimin Ma, Xiaoqin Zhang, Kai Zhang and **Shaodi You**, Survival-Oriented Reinforcement Learning Model: An Effcient and Robust Deep Reinforcement Learning Algorithm for Autonomous Driving Problem, IAPR International Conference on Image and Graphics, **ICIG2017**. [pdf]

[C9] Bin Yue, Min Gui, Jiahui Guo, Zhenglu Yang, Jin-Mao Wei and **Shaodi You**, An Effective Framework for Question Answering over Freebase via Reconstructing Natural Sequences. **WWW 2017**.

[C8] Kunming Li, Yu Li, **Shaodi You** and Nick Barnes, Photo-Realistic Simulation of Road Scene for Data-Driven Methods in Bad Weather, ICCV Workshop on Physics Based Vision meets Deep Learning, 2017. [pdf]

[C7] Riku Shigematsu, David Feng, **Shaodi You** and Nick Barnes, Learning RGB-D Salient Object Detection using background enclosure, depth contrast, and top-down features, ICCV Workshop on Mutual Benefit of Cognitive and Computer Vision, 2017. [pdf]

[C6] David Feng, **Shaodi You** and Nick Barnes, DSD: Depth Surface Descriptor for Structural Edge Detection, ICCV Workshop on Assistive Computer Vision and Robotics, 2017. [pdf]

[C5] David Feng, Nick Barnes, **Shaodi You** and Chris McCarthy. *Local Background Enclosure for RGB-D Salient Object Detection*. IEEE Computer Society Conference on Computer Vision and Pattern Recognition (**CVPR 2016**, Spotlight Presentation). Accept rate <10%. [pdf]. CVPR is the highest impact conference in computer vision, and top 20 highest impact conference in engineering.

[C4] **Shaodi You**, Robby T. Tan, Rei Kawakami, Yasuhiro Mukaigawa and Katsushi Ikeuchi. *Raindrop Detection and Removal from Long Range Trajectory*. 12th Asian Conference on Computer Vision (**ACCV 2014** Oral presentation), Nov. 3-5, 2014, Singapore. Accept rate < 5%. [pdf] [webpage]

[C3] **Shaodi You**, Robby T. Tan, Rei Kawakami and Katsushi Ikeuchi. *Adherent Raindrop Detection and Removal in Video*. IEEE Computer Society Conference on Computer Vision and Pattern Recognition (**CVPR 2013**), June 25-27, 2013, Portland, Oregon, USA. Accept rate < 25%. - [pdf] [webpage]. CVPR is the highest impact conference in computer vision, and top 20 highest impact conference in engineering.

[C2] **Shaodi You**, Robby T. Tan, Rei Kawakami and Katsushi Ikeuchi. *Robust and Fast Motion Estimation for Video Completion*. IAPR Machine Vision Applications (**MVA 2013** Oral), May 20-23, 2013, Kyoto, Japan. Accept rate < 7%. [pdf]

[C1] Xiao Yu, Huimin Ma, **Shaodi You** and Ze Yuan. A solution for efficient viewpoint space partition in 3D object recognition. International Conference on Image and Graphic 2009 (**ICIG2009** Oral), Xi'an, China. Accept rate < 7%. [pdf]

Thesis

[T3] Shaodi You. *Detection and Removal of Raindrop Images in A Video Sequence and Their Applications to Computer Vision Algorithms*. Doctoral Thesis, The University of Tokyo, 2015. [pdf]

[T2] Shaodi You, *Adherent Raindrop Detection and Removal in Video*, Master Thesis, The University of Tokyo, 2013. [pdf]

[T1] Shaodi You, *Manifold Multi-Resolution Analysis Method using Spectral Embedding Theory*, Bachelor Thesis, Tsinghua University, 2009. Best Thesis Award (Rank 1/90) [pdf].

Skills

Languages	Chinese(native), English(proficient), IELTS(S:7, L:8, R:8, W:7), Japanese(proficient), JLPT: N1. Dutch(daily), B2
Programming	Matlab, C++/C, Pytorch (Deep learning), MatConvNet (Deep learning), Verilog HDL (Hardware language), VHDL (Hardware language), MIPS assembly, x86 assembly.