

CURRICULUM VITAE

Personal Information



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Top H-index scientists for Computer Science and Electronics in Finland:
<https://research.com/scientists-rankings/computer-science/fi>

Current residence: Oulu, Finland

Postal Address: Center for Machine Vision and Signal Analysis,
P.O.Box 4500 FI-90014 University of Oulu, Finland

Education and degrees awarded

2002.9-2005.6, Key Laboratory of Intelligent Information Processing, Institute of Computing Technology (ICT), Chinese Academy of Sciences, Beijing, China. (Date of Ph. D. degree: July 30, 2005)

- ✧ Dissertation: Video-based Gait Recognition. Supervisor: Prof. Hua Li
- ✧ Honor of outstanding doctoral dissertation of Institute of Computing Technology, Chinese Academy of Sciences, 2005

1999.9-2002.6, CAD Center, North China University of Technology, Beijing, China.

- ✧ Master in Computer Science and Technology.
- ✧ Thesis: The Generation Technology and Application of Stereoscopic Dynamic Images
- ✧ Supervisor: Prof. Xinyuan Huang, Director of School Of Animation in Communication University of China
- ✧ Honor of outstanding master thesis of North China University of Technology, 2002.

Current position

- ✧ 2021.09 – **Academy Professor**, Academy of Finland and University of Oulu
- ✧ 2017.12 – present, **Full professor (Tenured)**, University of Oulu.
- ✧ 2022.06 –, **Visiting professor**, Aalto University.
- ✧ 2010.09 –, **Docent** (adjunct professor) in “Computer vision, especially dynamic texture and motion analysis” of the Faculty of Technology, **University of Oulu**.

Previous work experience

- ✧ 2022.09 – 2023.03, **Visiting professor**, Stanford University.
- ✧ 2014.01 - 2017.11, **Associate Professor (Tenure track)**, University of Oulu
- ✧ 2011.09 - 2017.01, **Academy research fellow** of the **Academy of Finland**.
- ✧ 2016.10 - 2021.12, **Visiting Professor**, Northwest University, China
- ✧ 2016.06 - 2016.08, **Nokia Visiting Professor**, Rutgers, The State University of New Jersey, USA
- ✧ 2013.07 - 2013.10, **Visiting Research Fellow**, Imperial College London, UK
- ✧ 2008.01 - 2011.05, **Academy postdoctoral researcher** of the Academy of Finland.
- ✧ 2005.7-2007.12, Senior Researcher (Senior Assistant, full time), Dr. Tech.: Machine Vision Group, Department of Electrical and Information Engineering, University of Oulu, Finland.
- ✧ 2002.9-2005.6, Research Assistant (full time), PhD candidate: Key Laboratory of Intelligent Information Processing, Institute of Computing Technology, Chinese Academy of Sciences.
- ✧ 1999.9-2002.6, Research Assistant (full time): CAD Center, North China University of Technology.
- ✧ Career breaks:
Aug. 19 – Dec. 20, 2008, Maternity leave; Dec. 1, 2011 – Apr. 4, 2012, Maternity leave.

Research funding and grants (Totalling 19.8+ Million Euros)

- ✧ 2021.09-2026.08: **Academy Professor Grant** (highest academic position of Academy of Finland): **Towards vision-based emotion AI ([EmotionAI](#))**. 2.37M€ (Overall success rate: 3.4%)
- ✧ 2024.03-2028.02 (No. AMod 101130271): HORIZON-MSCA-SE-2022: Affective Computing Models: from Facial Expression to Mind-Reading (AMod). 1,656,000.00 € (Consortium Coordinator)
- ✧ 2023.01-2028.12: funding to strengthen university research profiles: [Profi-7 Hybrid Intelligence](#) (vice director): 7.85M € (3.92M € from Academy of Finland + 3.93M € from University of Oulu).
- ✧ 2024.08-2027.12: Finnish Doctoral Program Network in Artificial Intelligence: (25 500 000 € for 100 positions from which 10 for UO), from Research Council of Finland (RCF) and Ministry of Education, Science and Culture.
- ✧ 2022.01-2024.12: **Academy ICT 2023 project**: “Trustable faces: Face data integrity against digital and physical attacks (TrustFace)”. 653 792 €.
- ✧ 2022.01-2025.12: INFOTECH project: **Towards Secure and Reliable Deep Learning Systems against Adversarial Attacks**. 336 000 €.
- ✧ 2023.02-2025.02: FARIA (The Finnish-American Research & Innovation Accelerator) project: **AI-assisted sundown syndrome detection in the Arctic region**. Funded by Ministry of Education and Culture of Finland. 85 000 €.
- ✧ 2023 Sep. – 2028 Aug: (NIH/NIA R61/R33 AG084471) A facial expression-based personalization engine (FPE) for monitoring and modulating real-time effective engagement in cognitive training in older adults at risk for AD/ADRD. Funded by **National Institutes of Health (NIH)** (Consultant. PIs: Dr. Vankee Lin & Dr. Ehsan Adeli, Stanford University, USA). 2 410 000 USD.
- ✧ 2022.03.01-2024.02.29: "Forest growth monitoring from UAV imagery with hyperbolic neural network", Mobility cooperation with India, China or Germany, funded by Academy of Finland, 12 990 €.
- ✧ 2021.01-2023.06: AI Forum: Artificial Intelligence Digital Revolution, funded by Ministry of Education and Culture of Finland. 833 333 € (Co-PI)
- ✧ 2020.01.01-2022.12.31: **Academy ICT 2023 project** “Context-aware autonomous neural network learning”: 571 311 €.
- ✧ 2018.09.01-2022.08.31: **Academy project** “Micro-gesture analysis with machine learning for hidden emotion understanding (MiGA)”: 857 145 €. Overall success rate: 15%.
- ✧ 2018.05.01-2022.12.31: Strand Co-Leader for **Academy Flagship project** “6G Enabled Wireless Smart Society & Ecosystem (6Genesis) ”: 9 166 700 €.
- ✧ 2018.09.01-2022.08.31: **Spearhead projects** “Towards Reading Micro-Expressions in the Real World”, University of Oulu: 440 000 €.
- ✧ 2018.01.01-2019.12.31: **Academy ICT 2023 project**: Separable Modality Learning: 438 500€.
- ✧ 2018.01.01-2019.12.31: **Business Finland funded project**: Quantifying Human Experience for Increased Intelligence Within Work Teams and in the Customer Interface. Total appropriation: 318 756€.
- ✧ 2016.10.01-2018.09.30: **Academy Key Project**: Cardiac beat to beat variability analysis from remote videos for health service (CAVA). Total appropriation: 300 000€. Overall success rate: 17%.
- ✧ 2016.01.01-2019.03.31: **Tekes Fidiopro Fellow project**: Facial Behaviour Analysis "in-the-wild". Total appropriation: 900 000 €. (PI: **Guoying Zhao**, Fidiopro Fellow: Prof. Stefanos Zafeiriou)
- ✧ 2014.09.01-2018.08.31: **Academy project funding** from Academy of Finland for researching “Computer Vision for Continuous Emotional State Analysis (CV4Emo)”: 858 607€. Overall success rate: 16%.
- ✧ **Tenure-track Associate Professor**: 2014.01-2017.01: 111 000 €
- ✧ 2011.09.01-2017.01.31: **Academy fellow position funding** from Academy of Finland for researching Computer vision methods for analyzing human communicative behavior. Total appropriation: 891 061 €. Overall success rate: 13%.
- ✧ 2011-2015: Senior Research Fellow Start-up Package from University of Oulu and Center for Machine Vision Research: 750 000 €.
- ✧ 2014.01-2015.06: **Infrastructure funding**: “Test databases and computing devices for machine vision research”, 110 160 €.
- ✧ 2008.01.01-2011.05.31: **Postdoctoral position funding** from Academy of Finland for researching Video-based event analysis and person identification. Total appropriation 189 000 €.

- ✧ 2016.01-2018.12: Hongkong Research Grants Council for researching Face anti-spoofing to combat mask attacks: A remote photoplethysmography approach (HKD 680K, Co-PI. PI: Prof. Pong-chi Yuen from Hongkong Baptist University)
- ✧ 2020.07: Learning oriented multi-modal data analysis and application study from Sino-Finnish Learning and Innovation Institute (150 000 RMB, Co-PI).
- ✧ 2016, made an ERC Consolidator grant application, got into the second round and final score: **A (fundable, top 15% out of over 2300 applications)**.
- ✧ EU project MOBIO “Mobile Biometrics” (2008-2010) FP7 (Participation).
- ✧ EU project TABULA RASA “Trusted Biometrics under Spoofing Attacks (2010-2014) (Participation).
- ✧ I4FUTUR MSCA COFUND: 2016 – 2021. Funded by Horizon 2020 – MCSA (Participation).
- ✧ I4WORLD MSCA COFUND: 2022 - 2027 (Participation).

Leadership and supervision experience

Postdoctoral researchers (16+):

Dr. Muzammil Behzad (2022.06-2023.12); Dr. Haoyu Chen: 2022.04-2024.01 (Now Assistant Professor with University of Oulu); Dr. Yang Liu: 2022.02-; Dr. Jukka Komulainen: 2022.01-; Dr. Mohammad Sabokrou: 2018.06-08; 2021.07-12 (Now Associate Professor of IPM); Dr. Qianru Xu: 2021-present; Dr. Hanlin Mo: 2021-present; Dr. Kevin Homan Cheng: 2020-2022 (Imaging Algorithm Engineer with Huawei Technologies Oy (Finland) Co., Ltd.); Dr. Xin Liu: 2019-2020 (Associate Professor of Lappeenranta-Lahti University of Technology, Finland; Academy of Finland postdoctoral researcher); Dr. Xiaobai Li: 2017-2020 (Now Professor with Zhejiang University, China; Assistant Professor of University of Oulu; Academy of Finland postdoctoral researcher); Dr. Quang Nhat Vo: 2018-2020 (AI scientist in Silo.AI); Dr. Jingang Shi: 2017-2020 (Assoc. Prof. of Xi'an Jiaotong University); Dr. Xiaohua Huang: 2015-2019 (Professor of Nanjing Institute of Technology); Dr. Xiaopeng Hong: 2011-2019 (Professor of Xi'an Jiaotong University); Dr. Mohammad Ghahramani: 2012-2013; Dr. Vili Kellokumpu: 2013-2017 (Scientist of VTT).

PhD dissertations (23+):

Vili Kellokumpu: 2006-2011 (Advisor); Yimo Guo: 2008-2013 (Co-supervisor); Xiaohua Huang: 2009-2014 (Co-supervisor); Xiaobai Li: 2010-2017 (Co-supervisor); Xin Liu: 2014-2019 (Main Supervisor); Yingyue Xu: 2015-2020 (Main Supervisor); Haoyu Chen: 2017-2022 (Pass with distinction. Main Supervisor); Zitong Yu, 2018-2022 (Pass with distinction. Main Supervisor); Yante Li, 2017-2022 (Main Supervisor); Wei Peng, 2018-2022 (Pass with distinction. Main Supervisor); Muzammil Behzad: 2018-2022 (Pass with distinction. Main Supervisor); Khanh Tran-Thuong: 2016-present (Main Supervisor); Henglin Shi: 2017-2023 (Main Supervisor); Abdelrahman Mostafa: 2020-present (Main Supervisor); Tuomas Varanka: 2020- present (Main Supervisor); Atif Shah: 2020- present (Main Supervisor); Marco Savic: 2021-present; Hui Zhang: 2022-present; Haotian Liu: 2023-present; Mengting Wei: 2023-present (Main Supervisor); Huai-Qian Khor: 2024-present (Main Supervisor); Ali Salar: 2024-present (Main Supervisor); Boyi Zheng: 2024-present (Co-supervisor)

Master thesis (30+): Tuomas Varanka, Hao Ban, Hamza Zair, Radouane Kaddari, Bofan Lin, Jiawei Zhang, Haoyu Chen, Niloufar Zebarjadi, Yingyue Xu, Qiuhai He, Yan Zhai, Matti Taini, etc.

Follow-up group chair for Ph. D students: Mr. Snehal Bhayani, Mr. Hietaniemi Riku, Ms. Iryna Savelieva, Mr. Saad Ullah Akram and Mr. Pratyush Pandab

Follow-up group member for Ph. D students: Mr. Jukka Komulainen, Ms. Anu Pramila, Ms. Mitra Daneshmand

Currently, from whom I have supervised, there are two Professors, five Associate professors, two Assistant professors, three Academy of Finland Fellow/Postdoc grant recipients, and many in international (e.g., Google, Siemens, Alibaba) and national companies (e.g., Silo.AI, Bittium Oyj, Visidon, Valossa).

My students and researchers are frequent recipients of very prestigious and highly competitive fellowships, such as:

- ✧ Academy of Finland Postdoc position
- ✧ Nokia Scholarship
- ✧ Endeavour Research Fellowship
- ✧ Tauno Tönning Research funding
- ✧ Finnish Cultural foundation grant
- ✧ Kauta Foundation grant

- ✧ Jorma Ollila grant
- ✧ Tekniikan Edistämisaatio grant
- ✧ Otto A. Malm Foundation grant
- ✧ Tekniikan edistämissäätiö postdoc grant

Teaching experience

- ✧ Lecturer for 521285S Affective Computing (5 ECTS), University of Oulu, 2014 – present.
- ✧ Lecturer for 521493S/521140S Computer Graphics (5 ECTS), University of Oulu, 2010 - present.
- ✧ FG 2018 tutorial: Guoying Zhao and Matti Pietikäinen: Reading hidden emotions from micro-expression analysis. May 15, 2018, Xi'an, China.
- ✧ SCIA 2013 tutorial, June 17, 2013 Helsinki, Finland.
- ✧ ICCV 2009 tutorial, 27th, Sep. 2009, Kyoto, Japan.
- ✧ ICPR 2006 Tutorials: Aug. 20-24, 2006, Hongkong
- ✧ DeepLearn school: Apr. 18-22, 2022, Guimarães, Portugal.
- ✧ Completed 15-credit University Pedagogy studies in 2019.
- ✧ **Keynote talks** in:
 - IEEE International Joint Conference on Biometrics (IJCB 2023), Sep. 25-28, Ljubljana, Slovenia.
 - Nordic Learning Analytics Summer Institute (NLASI 2023), June 1, 2023.
 - Science Forum, Helsinki, Finland, Jan. 13, 2023.
 - CNCC (China National Computer Congress) Micro-expression Forum, Dec. 8, 2022.
 - AAIA East China Artificial Intelligence Summit, July 23, 2022.
 - International Conference on Ubiquitous Positioning, Indoor Navigation and Location-Based Services (IEEE UPINLBS), Mar. 19, 2022;
 - Vision and Learning Seminar (VALSE), Jan. 19, 2022
 - Huawei Summit, Nov. 4, 2021.
 - ICCV “Face Anti-Spoofing Workshop and Challenge”, Oct. 11, 2021.
 - ICPR Workshop on “facial and body expressions, micro-expressions and behavior recognition”, Jan. 10, 2021.
 - Invited talk “Towards emotion AI and applications in Education” in 5th Virtual Conference of Sino-Finnish Joint Learning Innovation Institute. Nov. 25, 2020.
 - 9th International Conference on Computing and Pattern Recognition (ICCPR 2020), Oct. 31, 2020
 - IPM-AI Summer School 2020 (Aug. 22-26, 2020, <http://cs.ipm.ac.ir/asoc2020/>).
 - 12th International Conference on Bioinformatics and Biomedical Technology (ICBBT 2020), May 17, 2020.
 - 3rd International Conference on Biometric Engineering and Applications (ICBEA 2019), May 30, 2019.
 - 6th International Workshop on Context Based Affect Recognition (CBAR 2019) in conjunction with FG2019, May 14, 2019.
 - International symposium on frontier technologies and medical imaging analysis, June 28, 2018, Central South University.
 - First Workshop on Large-scale Emotion Recognition and Analysis in conjunction with FG2018, May 19, 2018.
 - Facial Micro-Expression Grand Challenge (MEGC): Methods and Datasets in conjunction with FG2018, May 15, 2018.
 - SIG 27 Conference, Nov. 29, 2016
 - ACCV workshop on Computer Vision for Affective Computing (CV4AC), Nov. 1, 2014

Experience of organising scientific meetings

- ✧ **General chair** of Arctic AI days, June 1-2, 2022, Oulu; 2024 International Conference on Image Processing and Media Computing (ICIPMC 2024), May 17-19, 2024 Hefei, China; 2022 International Conference on Image Processing and Media Computing (ICIPMC 2022), May 27-29, 2022 Xi'an, China; 3rd International Conference on Biometric Engineering and Applications (ICBEA 2019), Stockholm, Sweden, 2019; 4th International Conference on Biometric Engineering and Applications (ICBEA 2020), Xi'an, China.
- ✧ **Publicity chair** of 22nd Scandinavian Conference on Image Analysis (SCIA 2023), Levi, Finland.
- ✧ **Tutorial Chair** for ICPR 2024 (Kolkata, India).
- ✧ **Panel Chairs** for FG 2023 (Hawaii, USA).

- ✧ **Co-Program chair** of ACM International Conference on Multimodal Interaction 2021 (ICMI).
- ✧ **Late Breaking Results Co-Chairs** of 21st ACM International Conference on Multimodal Interaction (ICMI 2019)
- ✧ **Co-publicity chair of Conference on Automatic Face and Gesture Recognition (FG 2018).**
- ✧ **International Advisory Committee member:** ICACA 2024 (3rd International Conference on Advanced Computing and Applications (ICACA-2024) by CSI Kolkata Chapter).
- ✧ **Co-organizer of Finnish DENIS summer school on Affective Computing (2016).**
- ✧ **Co-chair of 28 international workshops/special sessions:** The 3rd RePSS - Vision-based Remote Physiological Signal Sensing, with IJCAI 2024; MAC: ACM Multimedia 2024 Micro-Action Analysis Challenge; Workshop on Hybrid Intelligence with ADRA (AI, Data and Robotics Association) forum 2023; The 1st and 2nd Challenge Workshop on Micro-gesture Analysis for Hidden Emotion Understanding (MiGA) with IJCAI 2023, IJCAI2024; ICASSP 2024 special session on “Learning with Incomplete Medical Data”; 1st International Workshop on Multimodal and Responsible Affective Computing (MRAC 2023) with ACM MM 2023; Chinese-MER 2023: Chinese Multimodal Emotion Recognition Challenge with ACM MM 2023; 2nd Workshop on “What’s Next in Affect Modelling?” with ACII 2022; “The 2nd Challenge Workshop on Remote Physiological Signal Sensing (RePSS)” with ICCV 2021; “Multimodal Sentiment Analysis in Real-life Media Challenge and Workshop” with ACM Multimedia 2021; IEEE BigMM Grand Challenge 2020 on Touchless Technologies; “CVPM 2020: International Workshop and Challenge on Computer Vision for Physiological Measurement” with CVPR 2020; "Automatic Face Analytics for Human Behavior Understanding (FaceHUB 2018)" with FG 2018; “CEFRL: Compact and Efficient Feature Representation and Learning in Computer Vision” with ICCV 2017; “Automatic Face Analytics for Human Behavior Understanding” with BMVC 2017; “Faces in-the-wild” Workshop-Challenge (Wild-Face) with CVPR 2017; “Multi-view lipreading challenge” with ACCV 2016; Workshop on “Spontaneous Facial Behavior Analysis” with ACCV 2016; Workshop on “Robust Features for Computer Vision” with CVPR 2016; Workshop on “Context-Based Affect Recognition and Affective Face in-the-wild” with CVPR 2016; Workshop on “Spontaneous Facial Behavior Analysis”, with ECCV 2014; Workshop on “RoLoD: Robust local descriptors for computer vision” with ACCV 2014; Workshops on “Machine Learning for Vision-based Motion Analysis” with ECCV 2008, ICCV 2009, CVPR 2011. (with X. Fu and M. Pietikäinen) Organization chair of special session “Expression and Micro-Expression Analysis: From Psychology to Computer Vision” for IEEE International Conference on Automatic Face and Gesture Recognition 2013 (FG’13); (with Z. Zhou and S. Zafeiriou) Organization chair of special session “Analysis of mouth motion for speech recognition and speaker verification” for IEEE International Conference on Automatic Face and Gesture Recognition 2015 (FG’15).
- ✧ **Advisory panel:** for international workshop on “Facial Micro-Expression Grand Challenge (MEGC): Methods and Datasets” with FG 2018, FG 2019 and FG 2020.
- ✧ **Area chair:** for ICASSP 2024; ACM Multimedia 2023; International Conference on Automatic Face and Gesture Recognition 2017, 2018, 2024; IEEE Winter Conference on Applications of Computer Vision 2017.
- ✧ **Mentor:** for FG 2013 Doctoral Consortium

Patents, inventions, awards and honours

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- ✧ **Member of Academia Europaea**, 2023-.
 - ✧ **Member, Finnish Academy of Sciences and Letters**, 2022-.
 - ✧ IEEE Fellow (**for contributions to facial expression analysis and feature representation**), 2022-.
 - ✧ Year the University Research award for success in research, 2021
 - ✧ Fellow of Asia-Pacific Artificial Intelligence Association (AAIA), 2021-.
 - ✧ IAPR Fellow, 2020 (For contributions to video analysis and affective computing).
 - ✧ Fellow of ELLIS (European Laboratory for Learning and Intelligent Systems) society, 2023
 - ✧ Selected to [world's top 2% scientists](#) (most widely cited scientists in different disciplines) by Stanford University for five consecutive years (2019-2023).
 - ✧ 2022 - Research.com Computer Science in Finland Leader Award
 - ✧ AAIA Women Committee members, 2022-.
 - ✧ Selected to one of ten prestigious Academy Professor posts for 2021-2026 (In total 10 Academy professors in Finland covering all disciplines).
 - ✧ Her doctoral student Dr. Wei Peng’s dissertation titled “Automatic neural network learning for human behavior understanding” awarded **Finnish AI Dissertation Award 2022**.

- ✧ The second prize of IEEE Finland Jt. Chapter SP/CAS Best Paper Award 2022 for “Zitong Yu, Benjia Zhou, Jun Wan, Pichao Wang, Haoyu Chen, Xin Liu, Stan Z. Li, Guoying Zhao. Searching Multi-Rate and Multi-Modal Temporal Enhanced Networks for Gesture Recognition. IEEE Transactions on Image Processing (TIP), 2021.”
- ✧ 2022 International Society for Magnetic Resonance in Medicine (ISMRM, best conference for MRI) Magna Cum Laude Merit Award (top 5%), for the work “Wei Peng, Li Feng, **Guoying Zhao**, and Fang Liu. Learning Optimal K-space Acquisition and Reconstruction using Physics-Informed Neural Networks”. The journal (Magnetic Resonance in Medicine, MRM) for ISMRM is TOP journal in this field.
- ✧ “**Zhao G.**, Huang X., Taini M., Li S.Z., Pietikainen M. Facial expression recognition from near-infrared videos. Image and Vision Computing, 29(9): 607-619, 2011.” Top 10 cited articles in IVC until 2021.
- ✧ IEEE Finland Section best student conference paper award 2020.
- ✧ Person of the year in 2020 among Chinese Scholars and Students in Finland.
- ✧ First place on Chalearn multi-modal face anti-spoofing attack detection challenge @ CVPR 2020.
- ✧ Second place on Chalearn single-modal face anti-spoofing attack detection challenge @ CVPR 2020.
- ✧ 2nd Place Scheme on Action Recognition Track of ECCV 2020 VIPriors Challenges.
- ✧ 10 leading Chinese talents on science and technology in Europe 2018.
- ✧ Excellent PhD graduated within 15 years from the Institute of Computing Technology of Chinese Academy of Sciences, 2016, 2020.
- ✧ Selected to reserve list in ERC 2014 starting grant and ERC 2016 consolidator grant.
- ✧ Finland’s most publishing researcher on AI in 2015-16 (Digibarometri 2017 report).
- ✧ Nokia Foundation Visiting Professor Award, 2016
- ✧ NVIDIA hardware grant, 2015
- ✧ Most remembered poster with ICCV 2011 for the work “Recognising Spontaneous Facial Micro-expressions. T. Pfister, X. Li, G. Zhao and M. Pietikäinen”
- ✧ Award of Academy research fellowship from Academy of Finland, 2011
- ✧ Award of postdoc project from Academy of Finland, 2008
- ✧ Honor of outstanding doctoral dissertation "Video-based Gait Recognition" of Institute of Computing Technology, Chinese Academy of Sciences, 2005
- ✧ Honor of outstanding master thesis “The Generation Technology and Application of Stereoscopic Dynamic Images” of North China University of Technology, 2002.
- ✧ Award of most outstanding organizer of graduate union activity of North China University of Technology, 2002.
- ✧ **Patents:**
 - 1) T. Pfister, M. Pietikäinen, X. Li and **G. Zhao**, Automated recognition algorithm for detecting facial expressions, US patent US 8848068 B2. Priority date: 2012-May-08; Publication date: 2014-Sep-30.
 - 2) PC Yuan, S. Liu, S. Zhang and **G. Zhao**, 3D Mask Face Anti-spoofing with Remote Photoplethysmography. US patent US10380444B2. Priority date: 2017-July-14; Publication date: 2019-Aug-13.
 - 3) Jinye Peng, Guifeng Li, Jingang Shi, **Guoying Zhao**, Zhan Li and Jun Wang. A method for micro-expression recognition under low-resolution. Application num: 201910128712.4. Pending.
 - 4) Zhan Li, Kaikai Wang, Baosheng Xu, **Guoying Zhao**, Jun Wang, Chao Wen, Bin Li & Jinye Peng. Label recommendation model construction method and system based on self-attention and collaborative attention mechanism. Application num: 202010153562.5. Pending.
 - 5) Zhan Li, Baosheng Xu, Kaikai Wang, Xiaojie Tian, **Guoying Zhao**, Yongqin Zhang, Jun Wang, Bin Li, Xi Yang & Jinye Peng. Multi-modal label recommendation model construction method and system based on multi-level attention mechanism. Appliation num: 202010152922.X. Pending
 - 6) **Guoying Zhao**, Tingting Wu, Zhan Li, Qingchen Fan, Yuheng Liu, Hai Zhang, Jinye Peng, Chao Wen, Yongin Zhang & Xi Yang. A three-dimensional convolutional micro-expression recognition algorithm based on attention mechanism. Appliation num: 202010847866.1. Pending.
 - 7) Mingnan Le, Jianbo Li, Wei Zhang, Bin Li, **Guoying Zhao**, Jinye Peng, Yongqin Zhang, Wanqing Zhao, Jun Wang. The model building, methods and device of object identification based on computational ghost imaging. Appliation num: 202010344210.8. Pending.

Other key scientific or academic merits

- ✧ **Pre-examiner and opponent of doctoral dissertations:** 20+ PhD theses for students from China, Finland, Sweden, France, UK, Singapore, Malaysia and Parkistan.

- ✧ **Grant proposal reviewer:** for ERC's Advanced Grant 2020; ERC Starting Grant 2023; Swiss National Science Foundation(2020); Dutch Research Council (2022, 2021); the National Science Center, Poland (2013); National Centre of Science and Technology Evaluation, Republic of Kazakhstan (2019); Medical Research Council of UK Research and Innovation (2019); National Natural Science Foundation of China.
- ✧ **Judge Committee of 2023 Innovators Under 35 China.**
- ✧ **External Promotions Assessor:** Professor promotion in Manchester Metropolitan University, UK, 2021; Associate promotion in Shenzhen University, China, 2021.
- ✧ **Evaluation committee for faculty recruitment: University of Barcelona (2019)**
- ✧ **Chair of review group for docentship application:** University of Oulu, 2014, 2015
- ✧ **Guest editor of ten special issues:**
 (Sanna Järvelä, Guoying Zhao, Andy Nguyen, Haoyu Chen) British Journal of Educational Technology (BJET) special section on **Hybrid Intelligence: Human-AI Co-evolution and Learning**, 2024-2025.
 (with B. Chen, S. Tan, G. Coatrieux) Security and Communication Networks: Special issue on Data-Driven Face Forensics and Security, 2020-2021
 (with X. Huang, M. Pietikäinen, W. Zheng, A. Dhall) Image and vision computing: special issue on Automatic face analytics for human behavior understanding, 2018-2019
 (with M. Pietikäinen, L. Liu, J. Chen, X. Wang and R. Chellappa) IEEE Trans. on Pattern Analysis and Machine Intelligence: Special Issue on Compact and Efficient Feature Representation and Learning in Computer Vision, 2017-2018
 (with X. Shen, W. Chen) Frontiers in Psychology: Special issue on Recognizing Microexpression: An Interdisciplinary Perspective, 2016-2017
 (with S. Zafeiriou, I. Kotsia, M. Nicolaou, J. Cohn) IEEE Transactions on Affective Computing: Special Issue on Human Behavior Analysis “in-the-wild”, 2016-2017
 (with S. Zafeiriou, I. Kotsia, M. Pietikäinen, J. Cohn and R. Chellappa) Special issue on Spontaneous Facial Behaviour Analysis (SFBA) for Computer Vision and Image Understanding, 2014-2015.
 (with J. Chen, Z. Lei, L. Liu, M. Pietikäinen) Speical Issue on robust local descriptors for computer vision, Neurocomputing 2014-2015.
 (with M. Pietikäinen, M. Turk, L. Wang, L. Cheng) Special Issue on Machine Learning in Motion Analysis, Image and Vision Computing, 2011-2012.
 (with L. Wang, N. Rajpoot, M. Nixon) Special issue on New Advances in Video-based Gait Analysis and Applications: Challenges and Solutions, IEEE Transactions on Systems, Man, and Cybernetics—Part B: Cybernetics, 2009-2010.
- ✧ **Director** of UOulu AI community (12.2018-12.2023).
- ✧ **Vice-coordinator** of special interest group on computer vision, Finnish center of artificial intelligence (02.2020-)
- ✧ **Board member** of Finnish AI society (FAIS, 2019-2023); of Scientific Board of Chinese Association of Science and Technology in Finland (CASTF); of Center for Machine Vision Research, University of Oulu, Finland, 2010-present.
- ✧ **International Scientific and Innovation Advisory Committee:** Centre for Research-based Innovation called Visual Intelligence, Norway.
- ✧ **International Expert in the Turkiye-EU project – ECITE, 2023-2025.**
- ✧ **Scientific Advisors:** Finnish Business Angels Network FiBAN; Webuust Oy.
- ✧ **Scientific Advisory Board member:** EvokAI Creative Labs Inc. (Canada)
- ✧ Participated in Leadership training (UniLead program) at University of Oulu: 2019
- ✧ WiML ICML 2022 Breakout Panel on Affective Computing.
- ✧ **Area chair (Senior PC member):** FG, WACV, ACM MM, ICASSP, ECAI
- ✧ **Member of program committees:** ICCV, CVPR, FG, BMVC, ICPR, CRV, AVSS, etc.
- ✧ **Book editor and author**
 Editor of Springer book: Machine Learning for Vision-based Motion Analysis, 2009;
 Editor of IGI global book: Machine Learning for Human Motion Analysis: Theory and Practice, 2009;
 Author of Springer book: Computer Vision Using Local Binary Patterns. Springer, 2011.

Scientific and societal impact of research

Publications: 1 book, 2 edited books, 5 book chapters, and over 300 journal and conference papers.
Citations: In Google Scholar, her h-index is 81, i10-index 223, and number of citations over 27770+ (until May 2024). Most cited paper: Zhao & Pietikäinen (PAMI 2007): 3340+ citations

Memberships and positions of trust in scientific societies

- ✧ **2023-, Member of Academia Europaea.**
- ✧ **2022-, Member of the Finnish Academy of Sciences and Letters.**
- ✧ **2022-, IEEE Fellow.**
- ✧ **2020-, Fellow of IAPR (International Association for Pattern Recognition).**
- ✧ **2021-, Fellow of Asia-Pacific Artificial Intelligence Association (AAIA).**
- ✧ **2023-, Fellow of ELLIS (European Laboratory for Learning and Intelligent Systems) society.**
- ✧ **2020-present, member of AAAC (The Association for the Advancement of Affective Computing).**
- ✧ **2022.11-present, vice chair of the award subcommittee and member of IEEE Signal Processing Society (SPS), Machine Learning for Signal Processing (MLSP) Technical Committee (MLSP TC).**
- ✧ **Editorial Board Member:** Pattern Recognition Journal (JUFO 3, 2016-2022); IEEE Transactions on Circuits and Systems for Video Technology (JUFO 2, 2018.01-2021.12); IEEE Trans. on Multimedia (JUFO 2, 2022-2024); Image and Vision Computing Journal (JUFO 2, 2015-); Frontiers in Psychology (JUFO 1, 2020-2024); Journal of Electronic Imaging (JUFO 1, 2017-2019)); International Journal of Network Dynamics and Intelligence (2022-); Visual Intelligence (2023-).

Research work in Press

Research work about facial expression recognition was reported on YLE TV1 Prisma in Feb. 7th, 2007

Research work about lipreading was reported on YLE TV2 Northern Finland News in Aug. 16th, 2007.

Research work about micro-expression was reported on YLE TV1 Prisma Studio in Sep. 15th, 2011.

Research work about visual speech analysis reported on Finnish Newspaper Kaleva in Mar. 10, 2015.

Work on reading hidden emotions from spontaneous micro-expressions reported by MIT Technology Review, Daily Mail, Technology Discovery TV, etc, 2015-2016.

Work on micro-expression was reported by [Savon Sanomat](#), Kaleva and other medias, Oct. 2017.

“[Tekoälyltä odotetaan myös tunne taitoja](#)” published in the webpage of Academy of Finland. Jan. 2018.

Academy professor position reported by Tekniikka&Talous, Oct. 2021.

Most important visits abroad

- ✧ CNS Lab, Stanford University, Sep. 2022 - Mar. 2023
- ✧ Prof. Jeffrey Cohn's group in University of Pittsburgh and CMU, USA, from Mid. June for two weeks, 2016
- ✧ Prof. Dimitris Metaxas' group in Rutgers, The State University of New Jersey, USA, Jun. – Aug. 2016
- ✧ Prof. Maja Pantic's IBUG group in Imperial College London, UK, July - Oct, 2013
- ✧ Prof. Mark Nixon's ISIS group in Southampton University, UK, July 11 - 22, 2011.
- ✧ Prof. Stan Z. Li's group in Institute of Automation, Chinese Academy of Sciences, Apr. 6 - 19, 2009