BO LI

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RESEARCH AREA

Latest Research Interests: Deep Learning Techniques and Its 3D Computer Vision/Graphics Applications
Research Fields Involved: Machine Learning, Computer Vision, Computer Graphics, Artificial Intelligence

EDUCATION

Nanyang Technological University, Singapore   *August 2007~August 2011*
- ✧ **Ph.D.** in Computer Science, October 2012
- ✧ GPA: 3.8/4.0

Texas State University, San Marcos, USA   *Aug. 2014~July. 2015*
- ✧ **M.S.** in Applied Mathematics, July 2015
- ✧ GPA: 3.75/4.0

Xi'an Jiaotong University, Xi'an, China   *September 2002~March 2005*
- ✧ **M.S.** in Computer Science, April 2005
- ✧ GPA: 3.8/4.0 (rank: **5/26**)

Xi'an Polytechnic University, Xi'an, China   *September 1998~July 2002*
- ✧ **B. S.** in Computer Science, July 2002
- ✧ GPA: 3.7/4.0 (rank: **1/34**)

WORK & RESEARCH EXPERIENCES

- ◆ **University of Southern Mississippi**, *Associate Professor (Tenured)*, School of Computing Sciences and Computer Engineering, Aug. 2022~Present, *Long Beach, MS*
- ◆ **University of Southern Mississippi**, *Assistant Professor (tenure-track)*, School of Computing Sciences and Computer Engineering, Aug. 2016~Jul. 2022, *Long Beach, MS*
  - ➢ **Research:** Semantics-driven sketch/image-based 3D model/scene retrieval, recognition, and understanding, generic models for image-to-sketch translation
  - ➢ **Students (**Supervised / Currently Supervising):
  - ✧ **PhD** Students:
    - Juefei Yuan (Semantics-Driven Large-Scale 3D Scene Retrieval, Aug. 2017~Jul. 2021): Current employment – Assistant Professor at the Southeastern State University of Missouri
  - ✧ **Master** Students:

Ramyasri Kanugula, Sameer Shaik (Survey on Generative-AI research, August 2023~Present)

Daniel McGonigle (GAN-Based Scene Sketch Generation, Jun 2019~January 2020): First employment - Machine Learning Researcher at *Systems & Technology Research*

Srikanth Reddy Medapati (MPA-Based 3D Shape Alignment, Aug. 2017~ May 2018)

Sriramireddy Kalvapalli (MPA-Based 3D Shape Alignment, Aug. 2017~May 2018)

Venkatesh Reddy Bodapatla (Semantic Tree-Based 3D Object Retrieval, Jun 2017~Aug. 2017)

Vihitha Daram, Surya Tej Rudra (Semantic Sketch Segmentation, Jan. 2017~May 2017; Big Data Scala Programming, Aug. 2017~Dec. 2017)

Rajidi Shashikanth Reddy (Sketch Segmentation and Labeling, Aug. 2016~Dec. 2016)

✦ **Undergraduate** Students:

Hameed Abdul Rashid (Scene Sketch Segmentation, May 2017~Dec. 2019, *CMU* RISS (Carnegie Mellon's Robotics Institute Summer Scholars) in Summer 2018): Now a Ph.D. student at *UIUC* since Aug. 2020

Natalie Gleason (Semantics-Driven 3D Scene Retrieval, January 2023~Present)

Justin Bennet (CNN-based hand gesture recognition, Jan. 2017~Dec. 2017)

Teneala Spencer (2D Scene Sketch-Based 3D Scene Retrieval, Aug. 2017~Dec. 2017)

➢ **Courses:**
✦ CSC 412 Introduction to Artificial Intelligence (Fall 2019~2022)
✦ CSC 632 Artificial Intelligence (Fall 2016/2017, Spring 2019)
✦ CSC 413/513 Introduction to Computer Algorithms (Spring 2020~2022)
✦ CSC 638/738 Advanced Algorithms (Spring 2018)
✦ CSC 411 DBMS (Spring 2018~2022)
✦ CSC 425 Computer Graphics Design (Fall 2018)
✦ CSC 625 Computer Graphics (Spring 2017, Fall 2018~2019)
✦ CSC 306 Operating Systems I (Fall 2020~2022)
✦ CS 638 Big Data Introduction (Summer 2017)
✦ CSC 408 Organization of Programming Languages (Fall 2016)

◆ **University of Central Missouri**, *Asst. Professor (non-tenure track),* Department of Computer Science and Mathematics, Aug. 2015~Jul. 2016   *Lee's Submit, MO*
➢ **Courses:**
✦ CS 5500 Advanced Operating Systems (Fall 2015)
✦ CS 5300 Advanced Algorithms and Data Structures (Spring 2016)
✦ CS 5620 Big Data: Storage, Analytics and Visualization (Summer I, 2016)
➢ **Students Supervised:**
✦ **Master** Students:

Githika Tondapu (Word Sense Disambiguation Component Improvement in the Semantic Tree-Based 3D Model Retrieval Project, Jan. 2016~Jul. 2016)

➢ **Research:** Semantic sketch-based 3D model retrieval; 3D sketch-based object retrieval/recognition

◆ **Texas State University**, *Postdoc*, Sep. 2012~Dec. 2014; *Graduate Research Associate*, Jan. 2015~Jul. 2015   *San Marcos, TX*
- ➢**Supervisors:** Yijuan Lu (supervisor), Qi Tian (co-supervisor)
- ➢**Sketch-Based 3D Model Retrieval:** Semantic sketch-based 3D model retrieval
  - ✧ Published **10** conference papers and **4** journal papers (2 CVIU journal)
- ➢**Shape Retrieval Contest** (**SHREC**) **Organization and Participations:**
  - ✧ Organized "SHREC'13/14 Sketch/Generic Track"
  - ✧ **First/First/Second** in "SHREC'13 Large-Scale/Partial/Low-Cost Track"

◆ **NIST**, *Guest Researcher*, Sep. 2011~Aug. 2012   *Gaithersburg, MD*
- ➢**Supervisor:** Afzal Godil
- ➢**Non-Rigid and Partial 3D Model Retrieval**
  - ✧ Published 3 conference papers and 1 journal paper
- ➢**SHREC Contests Organization and Participations**
  - ✧ Organized "SHREC'12 Sketch/Generic Track"
  - ✧ **First/Third** in "SHREC'12 Sketch-Based/Generic Track"

◆ **Nanyang Technological University**, *Graduate Research Assistant*, Aug. 2007~Aug. 2011   *Singapore*
- ➢**Supervisor:** Henry Johan
- ➢**Topic: View-Based 3D Model Retrieval Techniques**
  - ✧ Minimum Projection Area (MPA)-based 3D model alignment algorithm
  - ✧ View context shape descriptor supporting multi-modal queries
  - ✧ Sketch-based 3D model retrieval by incorporating 2D-3D alignment
  - ✧ Hybrid shape descriptor and class-based retrieval approach

◆ **ZTE**, *Senior Software Testing Engineer*, May 2005~Jul. 2007   *Xi'an, China*
- ➢**Supervisor:** Junmin Peng
- ➢**Work Responsibility**
  - ✧ Strategies and testing cases for integration testing of handset software
  - ✧ Code inspection using prepared code inspection table
  - ✧ Software version integration and regression test
  - ✧ Evaluated as the superior ('S') staff in the fiscal year of 2006

◆ *Xi'an Polytechnic University*, *Assistant Professor*, Jul., 2002~Jul. 2007
- ➢**Supervisor:** Xingshi He   *Xi'an, China*
- ➢**Work Responsibility**
  - ✧ Courses: C programming, Operating System, Matlab, Numerical Computation
  - ✧ Supervised >10 bachelor dissertations
  - ✧ China University Modeling Contest of Mathematics Supervisor: Second Prize

AWARDS

- ✧ Excellent Graduate Student, Xi'an Jiaotong Unviersity, China, 2003

◆ **Excellent Graduate** of Shaanxi Province, China, 2002
◆ **First Prize**, Advanced Mathematical Contest of Shaanxi Province, China, 2002
◆ Second Prize, China University Modeling Contest of Mathematics, 2000
◆ First prize, National College English Contest, China, 2001

FUNDS

◆ **Funded Projects**
◆ **Microsoft's AI for Earth Azure Compute Grant**. *Application of Deep Learning Neural Networks in Identifying Key Drivers of Vulnerability of Coastal Wetlands to Sea-level Rise,* $15,000, 10/01/2019~9/30/2020, Wei Wu (PI), Bo Li (Co-PI), (Support: Azure Credit), Co-PI
◆ **Creative and Scholarly Activity Award**. *Building a Scene Semantic Tree for Large-Scale 3D Scene Retrieval*. College of Arts and Sciences, University of Southern Mississippi (USM), $1,500, 01/01/2020~12/31/2020, PI
◆ **USM Proposal Development Grant**. Drone 3D Construction Site Safety Monitoring and Management. University of Southern Mississippi (USM), $2,000, 06/01/2019~05/31/2020, Siyuan Song (PI), Bo Li (Co-PI), Submitted on 4/15/2019, Co-PI
◆ **Nvidia Corporation GPU Grant Program**. *Semantic Large-Scale Sketch-Based 3D Shape Retrieval*, 01/01/2018~12/31/2021, $1,896 (Support: Two Nvidia Titan X GPU graphics cards), PI
◆ **Nvidia Corporation GPU Grant Program**. *Deep3D: Deep Learning-Based Large-Scale 3D Object Retrieval and Human Sketch Understanding*, $948, 01/01/2017~12/31/2021 (Support: One Nvidia Titan X GPU graphics card), PI
◆ **University of Southern Mississippi (USM) Faculty Startup Funds Award**. $12,000, 08/15/2016-06/30/2019, PI
◆ **University of Southern Mississippi (USM) Eagle Scholars Program for Undergraduate Research (Eagle SPUR) Award**. *Semantic 2D Image-Based 3D Scene Retrieval*, 2018 Fall Semester, $1000, Mentor
◆ **Xi'an Polytechnic University Grant**. *Multi-source Image Fusion*, $645, 01/01/2004-01/01/2005, PI

◆ **Unfunded Grant Submissions**
◆ **NSF Smart Health and Biomedical Research in the Era of Artificial Intelligence and Advanced Data Science (SCH)**. *Collaborative Research: SCH: Heat Stress Risk Factor Smart Monitoring System Supported by a Multimodal Sensor Platform and Bayesian Deep Learning Techniques*, $338,634, 06/01/2023-05/31/2025, Submitted on 11/10/2022, Bo Li (PI), Siyuan Song (PI, University of Alabama), Kaiwen Chen (Co-PI, University of Alabama)
◆ **NSF Career**. *Semantics-Driven Large-Scale 3D Scene Retrieval*, $494,341, 05/01/2019-04/30/2024, Submitted on 07/28/2021, PI

- ✧ University of Southern Mississippi (USM) – Gulf Park Campus, The Butch **Oustalet Distinguished Professorship Awards** (2021), $1000, Submitted on 4/01/2021
- ✧ **NSF EPSCoR RII-Track4**. *Semantic Tree-Based Large-Scale 3D Scene Retrieval*. $184,827, **05/15/2021-05/14/2023**, Submitted on 5/12/2020, Sole-PI
- ✧ **The Center for Construction Research and Training (CPWR), Small Study Program.** *A Construction Site Safety Surveillance Approach Assisted by Deep Learning-Based Human Activity Recognition*. $29,976, LOI Submitted on 7/27/2020, Co-PI, PI (Siyuan Song).
- ✧ **NSF CISE**. *RI: Small: SceneNet: A Richly-Annotated Hierarchical Scene Database Supporting Large-Scale 3D Scene Retrieval*. $498,961, 10/01/2020-09/30/2023, Submitted on 11/15/2019, PI
- ✧ **Amazon Research Award**. *Large-Scale 3D Scene Retrieval By Utilizing a Semantic Scene Tree*. $62,588 (Cash) + $20,000 (AWS Promotional Credits), 06/01/2020-05/31/2021, Submitted on 10/4/2019, PI
- ✧ **AI for Earth Innovation Grant**. *Application of Bayesian Deep Learning in Identifying Key Drivers for Predicting Coastal Wetland Loss.* The Leonardo DiCaprio Foundation (LDF) and Microsoft. $100,000 (Cash) + 15,000 (Azure Credit), 1/1/2020~12/31/2020, Wei Wu (PI), Bo Li (Co-PI), Shandian Zhe (Co-PI), Submitted on 9/30/2019, Co-PI
- ✧ **Nvidia Corporation GPU Grant Program**. *Semantic Tree-Based Large-Scale 3D Scene Retrieval*, $2,665 (Estimated price, Support: One refurbished Nvidia Titan V GPU graphics card), 01/01/2020~12/31/2022, Submitted on 8/16/2019, PI
- ✧ **NSF IIS**. *RI: Small: Collaborative Research: Semantic Tree-Based Large-Scale 3D Scene Retrieval*. $349,990 (USM Portion), 06/01/2019-05/31/2022, Submitted on 11/15/2018, PI
- ✧ **NSF Career**. *Semantics Driven Large-Scale Sketch-Based 3D Shape Retrieval*, $461,292, 05/01/2019-04/30/2024, Submitted on 07/18/2018, PI
- ✧ **NSF EPSCoR RII-Track4**. *Semantic Large-Scale Sketch-Based 3D Shape Retrieval,* $234,343, **05/01/2019-04/30/2021,** Submitted on 3/13/2018, PI
- ✧ **NSF Career**. *Semantic Large-Scale Sketch-Based 3D Shape Retrieval*, $466,426, 01/05/2018-04/30/2023, Submitted on 07/19/2017, PI (Ratings: 2 Good, 2 Good/Fair)
- ✧ **Sony Electronics Inc. Faculty Innovation Award**. *Sketch-Based 3D Shape Retrieval*, $100K, 06/01/2017~05/31/2018, Bo Li (PI), Yijuan Lu (Co-PI), Submitted on 10/16/2016, PI

- ◆ **Participation of Writing the Following Funding Proposals**
- ✧ **Texas State University Research Enhancement Program (REP) Grant.** *Smart "Nanny" Robotic System for Home Automation*, $16,000, 01/14/2013-03/31/2014 (funded)
  - ✓ **Responsible Part:** *Large Scale 2D Image to 3D Model Matching and Search*

- ✧ **NSF-CISE Computing Research Infrastructure (CRI)**. *Shared High Performance Data Center*. $375,756, 09/01/2013-08/31/2016 (funded)
  - ✓ **Responsible Part:** *project background information collection, hardware selection*
- ✧ **NIH Proposal.** *GIS-Based Cervical Cancer Prevention*, 11/15/2013 (unfunded)
  - ✓ **Responsible Part:** *Social Network based Healthcare Virtual Community*

PUBLICATIONS

- ◆ **Journals: 19** (including 3 CVIUs, 1 IJCV, 1 GMOD)
- ◆ **Conferences: 38** (including top ones, i.e., 1 CGI, 1 SIGGRAPH Asia Workshop, 2 ICMR, 1 WACV)
- ◆ **Google Scholar Citations (2000+):** https://goo.gl/DqaHGh
- ◆ **Lists of publications** (Notes: * indicates my students, + indicates corresponding author)**:**

Refereed International Journals:

- ◆ Juefei Yuan*, Tianyang Wang, Shandian Zhe, Yijuan Lu, **Bo Li**+. *Semantics-Based Large-Scale 3D Scene Model Retrieval.* **ACM Transactions on Multimedia Computing, Communications, and Applications (ACM TOMM)**, Under Revision, Jun 2023.
- ◆ Iliyan Illiev, Tom Rishel, **Bo Li**. *Semantic Analysis of Arab Leaders on Social Media*. **The Social Science Journal**, Published online, Feb 04, 2022
- ◆ Juefei Yuan*, Hameed Abdul-Rashid*, **Bo Li**+, Yijuan Lu, Tobias Schreck, et al. *A Comparison of Methods for 3D Scene Shape Retrieval*. **Computer Vision and Image Understanding**, Vol. 201, December, 2020, 103070, DOI: https://doi.org/10.1016/j.cviu.2020.103070.
- ◆ **Bo Li**, Juefei Yuan*, Yuxiang Ye, Yijuan Lu, Chaoyang Zhang, Qi Tian. *3D Sketching for 3D Object Retrieval*. **Multimedia Tools and Applications**, Vol. 80, 9569-9595, 2021.
- ◆ Wei Wang, Paul A. Watters, Xinyi Cao, Lingjie Shen, **Bo Li**+. *Significance of Phonological Features in Speech Emotion Recognition*. **International Journal of Speech Technology**, Springer, DOI: 10.1007/s10772-020-09734-7, Online First, July 15, 2020.
- ◆ Juefei Yuan*, Hameed Abdul-Rashid*, **Bo Li**+. *A Survey of Recent 3D Scene Analysis and Processing Methods*. **Multimedia Tools and Applications**, Springer, DOI: https://doi.org/10.1007/s11042-021-10615-7, 80(13), 19491-19511, February 27, 2021.
- ◆ **Bo Li**, Yijuan Lu, Henry Johan, Ribel Fares. *Sketch-Based 3D Model Retrieval Utilizing Semantic Information and Adaptive View Clustering*. **Multimedia Tools and Applications**, 76(24): 26603-26631, 2017.
- ◆ D. Pickup, X. Sun, P. L. Rosin, R. R. Martin, Z. Cheng, Z. Lian, M. Aono, A. Ben Hamza, A. Bronstein, M. Bronstein, S. Bu, U. Castellani, S. Cheng, V. Garro, A. Giachetti, A. Godil, L. Isaia, J. Han, H. Johan, L. Lai, **B. Li**, C. Li, H. Li, R. Litman, X. Liu, Z. Liu, Y. Lu, L. Sun, G. Tam, A. Tatsuma, J. Ye. *Shape Retrieval*

of Non-rigid 3D Human Models. **International Journal of Computer Vision**, 120 (2): 169-193, 2016

◆ **Bo Li**, Henry Johan, Yuxiang Ye, Yijuan Lu. Efficient 3D Reflection Symmetry Detection: A View-Based Approach, **Graphical Models**, 83: 2-14, 2016

◆ **Bo Li**, Yijuan Lu, Chunyuan Li, Afzal Godil, Tobias Schreck, and et al. A Comparison of 3D Shape Retrieval Methods Based on a Large-scale Benchmark Supporting Multimodal Queries. **Computer Vision and Image Understanding**, 131: 1-27, 2015

◆ **Bo Li**, Yijuan Lu, Afzal Godil, Tobias Schreck, and et al. *A comparison of methods for sketch-based 3D shape retrieval*. **Computer Vision and Image Understanding**, 119: 57-80, 2014

◆ Ivan Sipiran, Rafael Meruane, Benjamin Bustos, Tobias Schreck, **Bo Li**, Yijuan Lu, and Henry Johan. A Benchmark of Simulated Range Images for Partial Shape Retrieval. **The Visual Computer**, 30 (11): 1293-1308, 2014

◆ **Bo Li**, Afzal Godil and Henry Johan. *Hybrid Shape Descriptor and Meta Similarity Generation for Non-rigid and Partial 3D Model Retrieval*. **Multimedia Tools and Applications**, 72(2): 1531-1560, 2014

◆ **Bo Li**, Henry Johan. *3D Model Retrieval using Hybrid Features and Class Information*. **Multimedia Tools and Applications**, 62(3): 821-846, 2013

◆ **Bo Li**, Henry Johan. *Sketch-Based 3D Model Retrieval by Incorporating 2D-3D Alignment*. **Multimedia Tools and Applications**, 65(3): 363-385, 2013

◆ Henry Johan, **Bo Li**, Yuanmin Wei, Iskandarsyah. *3D Model Alignment based on Minimum Projection Area*. **Computer Graphics International 2011**, The **Visual Computer** 27(6-8): 565-574, 2011

Refereed International Conferences:

◆ Daniel McGonigle, Tianyang Wang, Juefei Yuan, Kai He, **Bo Li**[+]. I2S[2]: Image-to-Scene Sketch Translation using Conditional Input and Adversarial Networks. The 32th International Conference on Tools with Artificial Intelligence (**ICTAI'20**), Short paper, 6 pages, November 9-11, 2020, Online Conference, Accepted, September 2, 2020.

◆ Juefei Yuan*, Tianyang Wang, Shandian Zhe, Yijuan Lu, **Bo Li**[+]. *Semantic Tree-Based 3D Scene Model Recognition*. The IEEE 3rd International Conference on Multimedia Information Processing and Retrieval (**MIPR'20**), August 6-8, Shenzhen, Guangdong, China (Invited Paper), 2020, 1-6 (Accepted).

◆ Tianyang Wang, Jun Huan, Bo Li[+], Kaoning Hu. *Rethink Gaussian Denoising Prior for Real-world Image Denoising*. The 31th International Conference on Tools with Artificial Intelligence (**ICTAI'19**), Short paper, November 4-6, 2019, Portland, Oregon, USA (Accepted).

◆ Juefei Yuan*, Hameed Abdul-Rashid*, **Bo Li**[+], Yijuan Lu, Tobias Schreck, Ngoc-Minh Bui, Trong-Le Do,Khac-Tuan Nguyen, Thanh-An Nguyen, Vinh-Tiep Nguyen, Minh-Triet Tran, Tianyang Wang. In: S. Biasotti, G. Lavoue, B. Falcidieno, and I. Pratikakis and R.C. Veltkamp (eds.), *SHREC'19 Track:*

◆ *Extended 2D Scene Sketch-Based 3D Scene Retrieval*, Eurographics Workshop on 3D Object Retrieval 2019 (**3DOR 2019**), Genova, Italy, May 5-6, 2019.

◆ Hameed Abdul-Rashid*, Juefei Yuan*, **Bo Li**[+], Yijuan Lu, Tobias Schreck, Ngoc-Minh Bui, Trong-Le Do, Mike Holenderski, Dmitri Jarnikov, Khiem T. Le, Vlado Menkovski, Khac-Tuan Nguyen, Thanh-An Nguyen, Vinh-Tiep Nguyen, Tu V. Ninh, Perez Rey, Minh-Triet Tran, Tianyang Wang. In: S. Biasotti, G. Lavoue, B. Falcidieno, and I. Pratikakis and R.C. Veltkamp (eds.), *SHREC'19 Track: Extended 2D Scene Image-Based 3D Scene Retrieval*, Eurographics Workshop on 3D Object Retrieval 2019 (**3DOR 2019**), Genova, Italy, May 5-6, 2019.

◆ Juefei Yuan*, Hameed Abdul-Rashid*, **Bo Li**[+], Yijuan Lu. *Sketch/Image-Based 3D Scene Retrieval: Benchmark, Algorithm, Evaluation*. The IEEE 2nd International Conference on Multimedia Information Processing and Retrieval (**MIPR'19**), March 28-30, San Jose, CA, USA (Invited Paper), January 2019, 2019: 264-269.

◆ Tianyang Wang, Jun Huan, **Bo Li**. *Data Dropout: Optimizing Training Data for Convolutional Neural Networks*. The 30th International Conference on Tools with Artificial Intelligence (**ICTAI'18**), pages 39-46, November 5-7, 2018, Volos, Greece.

◆ J. Yuan*, **B. Li**[+], Y. Lu, S. Bai, X. Bai, N.-M. Bui, M. N. Do, T.-L. Do, A.-D. Duong, X. He, T.-K. Le, W. Li, A. Liu, X. Liu, K.-T. Nguyen, V.-T. Nguyen, W. Nie, V.-T. Ninh, Y. Su, V. Ton-That, M.-T. Tran, S. Xiang, H. Zhou, Y. Zhou, and Z. Zhou. *SHREC'18 Track: 2D Scene Sketch-Based 3D Scene Retrieval*. **Eurographics Workshop on 3D Object Retrieval 2018 (3DOR 2018)**, Delft, The Netherlands, April 16, pages 1–8, 2018.

◆ R. Hameed*, J. Yuan*, **Bo Li**[+], Y. Lu, S. Bai, X. Bai, N.-M. Bui, M. N. Do, T.-L. Do, A.-D. Duong, X. He, T.-K. Le, W. Li, A. Liu, X. Liu, K.-T. Nguyen, V.-T. Nguyen, W. Nie, V.-T. Ninh, Y. Su, V. Ton-That, M.-T. Tran, S. Xiang, H. Zhou, Y. Zhou, and Z. Zhou. *SHREC'18 Track: 2D Scene Image-Based 3D Scene Retrieval*. **Eurographics Workshop on 3D Object Retrieval 2018 (3DOR 2018)**, Delft, The Netherlands, April 16, pages 1–8, 2018.

◆ Hameed Abdul-Rashid*, **Bo Li**. *2D Scene Image-Based 3D Scene Retrieval: A Semantic Approach Based on R-CNN*. **2018 ACM Richard Tapia Celebration of Diversity in Computing**, Poster, Orlando, USA, September 19-22, 2018

◆ F. A. Limberger, R. C. Wilson, M. Aono, N. Audebert, A. Boulch, B. Bustos, A. Giachetti, A. Godil, B. Le Saux, **B. Li**, Y. Lu, H.-D. Nguyen, V.-T. Nguyen, V.-K. Pham, I. Sipiran, A. Tatsuma, M.-T. Tran, S. Velasco-Forero. *SHREC'17 Track: Point-Cloud Shape Retrieval of Non-Rigid Toys*. **Proceedings of Eurographics Workshop on 3D Object Retrieval 2017 (3DOR 2017)**, 75-84, Lyon (France), April 2017.

◆ Binh-Son Hua, Quang-Trung Truong, Minh-Khoi Tran, Quang-Hieu Pham, Asako Kanezaki, Tang Lee, Hung Yueh Chiang, Winston Hsu, **Bo Li**, Yijuan Lu, Henry Johan, Shoki Tashiro, Masaki Aono, Minh-Triet Tran, Viet-Khoi Pham, Hai-Dang Nguyen, Vinh-Tiep Nguyen, Quang-Thang Tran, Thuyen V. Phan, Bao Truong,

Minh N. Do, Anh-Duc Duong, Lap-Fai Yu, Duc Thanh Nguyen, and Sai-Kit Yeung. *SHREC'17: RGB-D to CAD Retrieval with ObjectNN Dataset.* **Proceedings of Eurographics Workshop on 3D Object Retrieval 2017 (3DOR 2017)**, 25-32, Lyon (France), April 2017.

◆ Manolis Savva, Fisher Yu, Hao Su, Asako Kanezaki, Zhichao Zhou, Rui Yu, Song Bai, Xiang Bai, Masaki Aono, Atsushi Tatsuma, S. Thermos, A. Axenopoulos, G. TH. Papadopoulos, P. Daras, Xiao Deng, Zhouhui Lian, **Bo Li**, Henry Johan, Yijuan Lu, and Sanjeev Mk. *SHREC'17 Track: Large-Scale 3D Shape Retrieval from ShapeNet Core55.* **Proceedings of Eurographics Workshop on 3D Object Retrieval 2017 (3DOR 2017)**, 39-50, Lyon (France), April 2017.

◆ **Bo Li**, Yijuan Lu, Jian Shen. *A Semantic Tree-Based Approach for Sketch-Based 3D Model Retrieval.* **2016 International Conference on Pattern Recognition (ICPR 2016)**, 3880-3885, 2016.

◆ Yuxiang Ye, **Bo Li**, Yijuan Lu. *3D Sketch-based 3D Model Retrieval with Convolutional Neural Network.* **2016 International Conference on Pattern Recognition (ICPR 2016)**, 2936-2941, 2016.

◆ **Bo Li**, Yijuan Lu, Fuqing Duan, Shuilong Dong, Yachun Fan, Lu Qian, Hamid Laga, Haisheng Li, Yuxiang Li, Peng Liu, Maks Ovsjanikov, Hedi Tabia, Yuxiang Ye, Huanpu Yin, Ziyu Xue. *SHREC'16 Track: 3D Sketch-Based 3D Shape Retrieval.* **Eurographics Workshop on 3D Object Retrieval 2016 (3DOR 2016)**, Lisbon, Portugal, May, 2016

◆ Pedro B. Pascoal, Pedro Proen, Filipe Gaspar, Miguel Sales Dias, Alfredo Ferreira, Atsushi Tatsuma, Masaki Aono, K. Berker Logoglu, Sinan Kalkan, Alptekin Temizel, **Bo Li**, Henry Johan, Yijuan Lu, Viktor Seib, Norman Link and Dietrich Paul. *SHREC'16 Track: Shape Retrieval of Low-Cost RGB-D Captures.* **Eurographics Workshop on 3D Object Retrieval 2016 (3DOR 2016),** Lisbon, Portugal, May, 2016

◆ **Bo Li**, Yijuan Lu and et al. *3D Sketch-Based 3D Model Retrieval.* Short Paper, **The 2015 ACM International Conference on Multimedia Retrieval (ICMR 2015)**, 555-558, 2015

◆ **Bo Li**, Yijuan Lu and et al. *KinectSBR: A Kinect-Assisted 3D Sketch-Based 3D Model Retrieval System.* Demo Paper, **The 2015 ACM International Conference on Multimedia Retrieval (ICMR 2015)**, 655-656, 2015

◆ **Bo Li**, Henry Johan, Yuxiang Ye, Yijuan Lu. *Efficient View-Based 3D Reflection Symmetry Detection.* **SIGGRAPH Asia 2014 Workshop on Creative Shape Modeling and Design**, 2:1-2:8, 2014 (Invited for extended journal submission to Graphical Models)

◆ **Bo Li**, Yijuan Lu, Chunyuan Li, Afzal Godil, Tobias Schreck, Masaki Aono, Qiang Chen, Nihad Karim Chowdhury, Bin Fang, Takahiko Furuya, Henry Johan, Ryuichi Kosaka, Hitoshi Koyanagi, Ryutarou Ohbuchi, Atsushi Tatsuma. *SHREC'14 Track: Large Scale Comprehensive 3D Shape Retrieval.* **Eurographics Workshop on 3D Object Retrieval 2014 (3DOR 2014)**, 131-140, April, 2014 (As organizer and contestant)

- **Bo Li**, Yijuan Lu, Chunyuan Li, Afzal Godil, Tobias Schreck, Masaki Aono, Martin Burtscher, Hongbo Fu, Takahiko Furuya, Henry Johan, Jianzhuang Liu, Ryutarou Ohbuchi, Atsushi Tatsuma, Changqing Zou. *SHREC'14 Track: Extended Large Scale Sketch-Based 3D Shape Retrieval*. **Eurographics Workshop on 3D Object Retrieval 2014 (3DOR 2014)**, 121-130, April, 2014 (As organizer and contestant)

- D. Pickup, X. Sun, P. L. Rosin, R. R. Martin, Z. Cheng, Z. Lian, M. Aono, A. Ben Hamza, A. Bronstein, M. Bronstein, S. Bu, U. Castellani S. Cheng, V. Garro, A. Giachetti, A. Godil, J. Han, H. Johan, L. Lai, **B. Li**, C. Li, H. Li, R. Litman, X. Liu, Z. Liu, Y. Lu, A. Tatsuma, J. Ye. *SHREC'14 Track: Shape Retrieval of Non-Rigid 3D Human Models*. **Eurographics Workshop on 3D Object Retrieval 2014 (3DOR 2014)**, 101-110, April, 2014 (As contestant)

- **Bo Li,** Y. V. Venkatesh, Ashraf A. Kassim, Yijuan Lu. *Improving PMVS Algorithm for 3D Scene Reconstruction from Sparse Stereo Pairs*. **Pacific Rim Conference on Multimedia** 2013, 221-232, 2013

- **Bo Li**, Yijuan Lu, Ribel Fares. *Semantic Sketch-Based 3D Model Retrieval*. **ICME 2013 (Short paper)**: 1-4, April, 2013

- **Bo Li**, Yijuan Lu, Henry Johan. *Sketch-Based 3D Model Retrieval by Viewpoint Entropy-Based Adaptive View Clustering*. **Eurographics Workshop on 3D Object Retrieval 2013 (3DOR 2013)**, 49-56, May, 2013

- **Bo Li**, Yijuan Lu, Afzal Godil, Tobias Schreck, Masaki Aono, Henry Johan, Jose M. Saavedra, Shoki Tashiro. *SHREC'13 Track: Large Scale Sketch-Based 3D Shape Retrieval*, **Eurographics Workshop on 3D Object Retrieval 2013 (3DOR 2013)**, 89-96, May, 2013 (As organizer and contestant)

- Ivan Sipiran, Rafael Meruane, Benjamin Bustos, Tobias Schreck, Henry Johan, **Bo Li**, and Yijuan Lu. *SHREC'13 Track: Large-Scale Partial Shape Retrieval Track Using Simulated Range Images*, **Eurographics Workshop on 3D Object Retrieval 2013 (3DOR 2013)**, 81-88, May, 2013 (As contestant)

- Joao Machado, Pedro B. Pascoal, Alfredo Ferreira, Mostafa Abdelrahman, Masaki Aono, Moumen El-Melegy, Aly Farag, Henry Johan, **Bo Li**, Yijuan Lu, and Atsushi Tatsuma. *SHREC'13 Track: Retrieval of Objects Captured with Low-Cost Depth-Sensing Cameras*, **Eurographics Workshop on 3D Object Retrieval 2013 (3DOR 2013)**, 65-71, May, 2013 (As contestant)

- **Bo Li**, Afzal Godil and Henry Johan. *Non-rigid and Partial 3D Model Retrieval Using Hybrid Shape Descriptor and Meta Similarity*. **ISVC 2012**, Part I, LNCS 7431: 199–209, 2012

- **Bo Li**, Tobias Schreck, Afzal Godil and et al. *SHREC'12 Track: Sketch-Based 3D Shape Retrieval*, **Eurographics Workshop on 3D Object Retrieval 2012 (3DOR 2012)**, 109-118, May, 2012

- **Bo Li**, Afzal Godil and et al.: *SHREC'12 Track: Generic 3D Shape Retrieval*, **Eurographics Workshop on 3D Object Retrieval 2012 (3DOR 2012)**, 109-118, May, 2012

- **Bo Li**, Henry Johan: *View Context Based 2D Sketch-3D Model Alignment*, IEEE Workshop on Applications of Computer Vision (**WACV2011**), 45-50, 2011

◆ **Bo Li**, Henry Johan: *View Context: A 3D Model Feature for Retrieval*. Lecture Notes in Computer Science, Advances in Multimedia Modeling, The Sixteenth International Conference on MultiMedia Modeling (**MMM2010**), LNCS 5916:185-195, 2010

◆ **Bo Li**, Henry Johan. *3D Model Retrieval Using Local and Global Radial Distances*. The International Workshop on Advanced Image Technology (**IWAIT2010**), 2010

◆ **Bo Li**, Henry Johan. *A Comparison Study on Two Multi-scale Shape Matching Schemes*. Lecture Notes in Computer Science, Advances in Visual Computing, (**ISVC 2008**), LNCS 5359: 440-449, 2008

Refereed National (Chinese) Journals:
◆ **Bo Li**, Juan Wang, Zheng Qin, Aiguo Li. *General Platform of Multiresolution Image Fusion*. **Computer Engineering**, 32(24): 269-271, 2006

◆ **Bo Li**, Zheng Qin, Meihong Shi. *Texture Segmentation based on Wavelet Transform and FCM Algorithm*. **Computer Engineering**, 31(24):148~150, 2005

◆ Xingshi He, Jun Zhang, **Bo Li**, Qi Zhang. *Model for Choosing a Bicycle Wheel* (The 2001 Mathematical Contest in Modeling (MCM) paper), **Basic Sciences Journal of Textile Universities**, 14(1): 56-61, 2001

Dissertations and Reports:

◆ **Bo Li**. *View-Based Techniques for 3D Model Retrieval*. Nanyang Technological University. **PhD Dissertation**, 2012

◆ **Bo Li**. *3D Modeling by Deforming a Reference Model Guided by Design Images*. Nanyang Technological University. **PhD Qualification Examination Report**, 2009

◆ Bo Li. *Semantic tree-based 3D model retrieval using 2D sketch queries*. **Master Thesis**. Texas State University, 2015

◆ **Bo Li**. *Fuzzy Integral Image Fusion and Its Applications in Flame Detection*. **Master Thesis**, 2005

◆ **Bo Li**. *Texture Image Segmentation based on Wavelet Transform and FCM Algorithm*. **Bachelor Thesis**, 2002

PATENTS

◆ **Bo Li**, Junmin Peng. *An Integration Testing Method for Handset Software*. Patent type: National (China), Patent No.: CN101212759A, 2006

QUALIFICATIONS, PROGRAMMING & SOFTWARE

◆ **Programming:**
  ✧ *General-purpose Programming Languages*: C/C++, Python, Matlab, R, Java, Perl

- ✧ *Web Programming:* HTML, CSS, JavaScript, React
- ✧ *Parallel programming*: CUDA, OpenMP
- ✧ *Others*: Algorithms, Data Structures, DBMS
- ◆ **Visual Computing:**
  - ✧ *Deep Learning*: PyTorch, Scikit-Learn, TensorFlow, MatConvNet, Numpy, Pandas, Matplotlib
  - ✧ *Others*: CUDA, GPU parallel Programming, OpenGL, GLSL, OpenCV
- ◆ **Domain Knowledge:**
  - ✧ *Artificial Intelligence*: Computer Graphics, Computer Vision, Deep Learning, Machine Learning
  - ✧ *Software Testing*: Mobile Software Testing, Mobile Communications
  - ✧ *Others*: Operating Systems, Data Science, Cloud Computing

PROFESSIONAL ACTIVITIES

- ◆ **Reviewer:**
- ✧ SIGGRAPH
- ✧ SIGGRAPH ASIA
- ✧ IEEE Transactions on Image Processing (TIP)
- ✧ Pattern Recognition
- ✧ Computer Vision and Image Understanding
- ✧ IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)
- ✧ IEEE Transactions on Cybernetics (TCYB)
- ✧ Pattern Recognition Letters
- ✧ Visual Computer
- ✧ Multimedia Tools and Applications
- ✧ Computers & Graphics
- ◆ **Track Organizers:** Eurographics 3DOR Workshop on Shape Retrieval Contest (**SHREC**) 2012, 2013, 2014, 2016, 2018, 2019 track organizers: 9 tracks on sketch-based and general 3D model retrieval
- ◆ **Conference Committee and Journal Editorial Board:**
- ✧ WACV'19 1st & 2nd & 4rd International Workshop on Human Activity Detection in Multi-Camera, Continuous, Long-Duration Video (HADCV'19, HADCV'20, HADCV'22)
- ✧ IEEE 1st and 4th International Conference on Multimedia Information Processing and Retrieval (MIPR 2018, MIPR 2021)
- ✧ 1st Workshop on Visual Analysis of Sketches (VASE'16)
- ✧ 1st IEEE ICCC International Workshop on Internet of Things (IOT 2013)
- ◆ **Invited Talks:**
- ✧ The 3rd International Conference on Multimedia Information Processing and Retrieval (MIPR 2020)
- ✧ Oregon State University (April 11-12, 2019)
- ✧ University of Southern Mississippi (April 2016, November 2018)
- ✧ Texas A&M University – Commerce (April 2016)

- ✧ Texas A&M University – San Antonio (April 2016)
- ✧ South Dakota School of Mines and Technology (March 2016)
- ✧ University of Wisconsin – Platteville (March 2016)

Updated: 12-16-2023