Xiaoliang Wang

CONTACT INFORMATION

Lockett Hall 104
Virginia State University
Petersburg, VA 23806, USA

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EDUCATION

Binghamton University, State University of New York, Binghamton, New York, USA

Ph.D. in Electrical Engineering, 2018

- Advisor: Zhanpeng Jin

Tongji University, Shanghai, China

M.S. in Electrical Engineering, 2009

- Advisor: Tao Lin

Tongji University, Shanghai, China

B.S. in Electrical Engineering, with highest honor, 2006

ACADEMIC EXPERIENCE

Virginia State University, Petersburg, Virginia, USA
Assistant Professor **2018 - present**

Binghamton University, State University of New York, Binghamton, New York, USA
Teaching Assistant **2013**

GRANTS AND AWARDS

- **PI, Commonwealth Center for Advanced Manufacturing (CCAM) Innovation Fund, $100,000** 2021-2022
  "A Generic Field-Programmable Gate Array (FPGA) Based Hardware Platform to Deploy Deep Learning for Smart Manufacturing"
- **PI, Department of Defense I-DREAM4D Consortium, $10,000** 2020-2021
  "A Deep Learning based Approach for Automatic Microstructure Quantification and Qualification in Metal Additive Manufacturing"
- **Co-PI, DoD Research and Education Program for HBCU/MI Equipment Award, $483,836** 2019-2021
  "Acquisition of Advanced Manufacturing Equipment to Utilize Cyber Physical Systems for Smart Manufacturing Research"
- **Awardee, Virginia State University, Provost Academic Travel Award, $2,000** 2018
  "A Deep Learning based Method for Object Detection from Unmanned Aerial Vehicle"

PUBLICATIONS

Refereed Journals

Heng Li, Taher M Abu-Lebdeh, Sameer A Hamoush, Vincent E. Lamberti, **Xiaoliang Wang**, "The Impact of Bulk Density on Shape of a Cohesive-less Granular Heap," *International Journal of Applied Science and Technology, vol. 11, no. 2, 2021.*

Yongjin Lu, Wei-Bang Chen, **Xiaoliang Wang**, Zanyah Ailsworth, Melissa Tsui, Huda Al-Ghaib, Ben Zimmerman, "Deep Learning-Based Models for Porosity Measurement in Thermal Barrier Coating Images," *International Journal of Multimedia Data Engineering and Management (IJMDEM), vol. 11, no. 3, 2020.*

Xiaoliang Wang, Zhanpeng Jin, "An Overview of Mobile Cloud Computing for Pervasive Healthcare," *IEEE Access, vol. 7, no. 1, pp. 66774-66791, 2019.*

Wei-Bang Chen, Benjamin Standfield, Song Gao, Yongjin Lu, **Xiaoliang Wang**, Zimmerman Ben, "A Fully Automated Porosity Measure for Thermal Barrier Coating Images," *International Journal of Multimedia Data Engineering and Management (IJMDEM), vol. 9, no. 4, 2018.*

Xiaoliang Wang, Qiong Gui, Bingwei Liu, Zhanpeng Jin, and Yu Chen, "Enabling Smart Personalized Healthcare: a Hybrid Mobile-Cloud Approach for ECG Telemonitoring," *IEEE Journal of Biomedical and Health Informatics (JBHI), vol. 18, no. 3, pp. 739-745, May 2014.*

Xiaoliang Wang, Kailun Zhou and Tao Lin, "Design of H.264 Double Slice Decoder", *Journal of Cable Television Technology, pp. 103-105, December 2008.*

Refereed Conference and Workshop Proceedings

Zanyah Alisworth, Wei-Bang Chen, Yongjin Lu, **Xiaoliang Wang**, Melissa Tsui, Huda Al-Ghaib, Ben Zimmerman, "A Hybrid Image Segmentation Approach for Thermal Barrier Coating Quality Assessments," in *Proceedings of 2021 IEEE Conference on Multimedia Information Processing and Retrieval (MIPR). IEEE, 2021.*

Wei-Bang Chen, Yongjin Lu, Zanyah Ailsworth, **Xiaoliang Wang**, Chengcui Zhang, "Enhancing Multimodal Clustering Framework with Deep Learning to Reveal Image Spam Authorship," in *Proceedings of 2021 IEEE International Conference on Information Reuse and Integration (IRI). IEEE, 2021.*

Xiaoliang Wang, Yongjin Lu, Wei-Bang Chen, "Promote Retinal Lesion Detection for Diabetic Retinopathy Stage Classification," in *Proceedings of 2020 IEEE Conference on Multimedia Information Processing and Retrieval (MIPR). IEEE, 2020, vol. 1, pp. 31-34.*

Benjamin Standfield, Wei-Bang Chen, Yujuan Wang, Yongjin Lu, Ahmed F. Abdelzaher, **Xiaoliang Wang**, Xin-Guang Yang, "Using Convolutional Neural Networks to Detect and Extract Retinal Blood Vessels in Fundoscopic Images," in *Proceedings of 2019 IEEE Conference on Multimedia Information Processing and Retrieval (MIPR). IEEE, 2019, pp. 222-227.* (acceptance rate=19.3%)

Xiaoliang Wang, Peng Cheng, Xinchuan Liu, Benedict Uzochukwu, "Fast and Accurate, Convolutional Neural Network based Approach for Object Detection from UAV," in *Proceedings of IECON 2018-44th Annual Conference of the IEEE Industrial Electronics Society. IEEE, 2018, pp. 3171-3175.*

Xiaoliang Wang, Yongjin Lu, Yujuan Wang, Wei-Bang Chen, "Diabetic Retinopathy Stage Classification Using Convolutional Neural Networks," in *Proceedings of 2018 IEEE International Conference on Information Reuse and Integration (IRI). IEEE, 2018, pp. 465-471.*

Xiaoliang Wang, Peng Cheng, Xinchuan Liu and Benedict Uzochukwu, "Focal Loss Dense Detector for Vehicle Surveillance," in *Proceedings of 2018 International Conference on Intelligent Systems and Computer Vision (ISCV). IEEE, 2018, pp. 1-5.*

Xiaoliang Wang, Wei Wang and Zhanpeng Jin, "Context-Aware, Reinforcement Learning-Based Mobile Cloud Computing for Telemonitoring," in *Proceedings of 2018 IEEE EMBS International Conference on Biomedical and Health Informatics (BHI). IEEE, 2018, pp. 426-429.*

Xiaoliang Wang, Wenyao Xu and Zhanpeng Jin, "A Hidden Markov Model Based Dynamic Scheduling Approach for Mobile Cloud Health Monitoring," in *Proceedings of 2017 IEEE EMBS*

International Conference on Biomedical and Health Informatics (BHI). IEEE, 2017, pp. 273-276. (acceptance rate=14% for oral presentation)

Zhanpeng Jin,**Xiaoliang Wang**, Qiong Gui, Bingwei Liu, and Sejun Song, "Improving Diagnostic Accuracy Using Multiparameter Patient Monitoring Based on Data Fusion in the Cloud," in *Future Information Technology. Springer, 2014, pp. 473-476.*

Qiong Gui, **Xiaoliang Wang**, Bingwei Liu, Zhanpeng Jin, and Yu Chen, "Finding Needles in a Haystack: Reducing False Alarm Rate Using Telemedicine Mobile Cloud," in *Proceedings of 2013 IEEE International Conference on Healthcare Informatics. IEEE, 2013, pp. 541-544.*

Xiaoliang Wang, Qiong Gui, Bingwei Liu, Yu Chen, and Zhanpeng Jin, "Leveraging Mobile Cloud for Telemedicine: A Performance Study in Medical Monitoring," in *Proceedings of 2013 39th Annual Northeast Bioengineering Conference. IEEE, 2013, pp. 49-50.*

Professional Experience

Vanteon Corporation, Fairport, New York, USA
Software Engineer Intern **2015**

SUNY Research Foundation (sponsored by Xerox Research Center Webster), Webster, New York, USA
Research Associate/Assistant **2014**

Actions Semiconductor, Inc., Shanghai, China
Software Engineer **2010 - 2012**

Mavrix Technology, Inc., Shanghai, China
Software Engineer **2009 - 2010**

Institute of Very Large Scale Integration of Tongji University, Shanghai, China
Research Assistant **2007 - 2009**

Professional Service

Technical Program Committee:

- TPC Member, The 3rd International Conference on Urban Intelligence and Applications, 2021
- TPC Member, The 2nd International Conference on Urban Intelligence and Applications, 2020
- TPC Member, IEEE Workshop on Machine Learning and Artificial Intelligence for Multimedia Creation, 2018

Reviewers for:

- Journals:
  IEEE Transactions on Industrial Informatics
  IEEE Internet of Things Journal
  BioMedical Engineering Online
  Wireless Communications and Mobile Computing
  International Journal of Imaging Systems and Technology
  Multimedia Systems
  Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization
  Biomedical Engineering/Biomedizinische Technik

International Journal of Multimedia Data Engineering and Management (IJMDEM)
International Journal of Smart Sensor Technologies and Applications (IJSSTA)

- Conferences:
  The Annual Conference of the IEEE Industrial Electronics Society (IECON)
  IEEE International Symposium on Industrial Electronics (ISIE)
  IEEE International Conference on Industrial Engineering and Applications (ICIEA)
  International Conference on Wearable and Implantable Body Sensor Networks (BSN)
  IEEE International Conference on Consumer Electronics (ICCE)