

SKILLS

Programming	• Python, Matlab, C++, Lua, JavaScript
Machine Learning	• Experienced with large-scale systems and state-of-the-art algorithms
Computer Vision	• Experienced with scene understanding , semantic segmentation and video analysis
Data Mining	• Experienced with clustering , anomaly detection and graph analysis

EDUCATION

Ph.D.	• Computer Science , Simon Fraser University, Burnaby, BC, Canada	2015
Master of Science	• Computer Science , Shandong University, Jinan, China	2010
Bachelor of Science	• Computer Science , Shandong University, Jinan, China	2007

TECHNICAL WORK EXPERIENCE

Senior Researcher	Oracle Labs , Vancouver, Canada	Dec 2015-Present
	• Deep learning for network behavior analysis	
Intern	SAP , Vancouver, Canada	Sept 2014-May 2015
	• Interactive graph visualization : implement with JavaScript, UI5, Neo4j, jQuery, d3, SVG, etc.	
Intern	Disney Research , Pittsburgh, PA, USA	Sept-Dec 2013
	• Scenery part discovery : implemented MCF solver in C++ to speed up clustering by 100 times	

RESEARCH EXPERIENCE

Research Assistant	Simon Fraser University , Burnaby, BC, Canada	Jan 2011-Nov 2015
	• Recurrent neural networks : recognize image labels among concept layers	
	• Semantic segmentation : leverage global information for local pixel labelings	
	• Max-margin clustering : extend with latent variables and hierarchical structures	
	• Scene understanding : recognize scenes from a collection of objects and surfaces	
	• Video event analysis : discover events in YouTube videos; recognize falling in nursing home videos	
	• Anomaly detection : contextual anomaly detection in categorical relational data	
	• Content-based image retrieval : distance learning to handle relevance feedback	
Visiting Student	Monash University , Churchill, Vic, Australia	Aug 2009-Feb 2010
	• Mass estimation : design and apply it for outlier detection, information retrieval and regression	

OTHER EXPERIENCE

Teaching Assistant	Simon Fraser University , Burnaby, BC, Canada	
	• Taught Machine Learning to 20 undergrad and 50 grad students	Jan-Apr 2011
	• Taught Data Structures and Algorithms to 85 undergrads	Sept-Dec 2011
Reviewer	• NIPS : Neural Information Processing Systems	2014,2015,2017
	• TPAMI : IEEE Transactions on Pattern Analysis and Machine Intelligence	2014,2016
	• TKDD : ACM Transactions on Knowledge Discovery from Data	2013
Program Committee	• IJCAI : International Joint Conference on Artificial Intelligence	2013
Web Master	• ACM SIGKDD Conference 2012 (kdd2012.sigkdd.org)	2012

PUBLICATIONS

- [CVPR'16] • **Learning Structured Inference Neural Networks with Label Relations.**
Hexiang Hu, Guang-Tong Zhou, Zhiwei Deng, Zicheng Liao and Greg Mori.
IEEE Computer Vision and Pattern Recognition, 2016.
- [THESIS'15] • **Toward Scene Recognition by Discovering Semantic Structures and Parts.**
Ph.D. Thesis, Simon Fraser University, 2015.
- [ARXIV'15] • **Hierarchical Maximum-Margin Clustering.**
Guang-Tong Zhou, Sung Ju Hwang, Mark Schmidt, Leonid Sigal and Greg Mori.
arXiv:1502.01827, 2015.
- [CVPRW'15] • **Discovering Human Interactions in Videos with Limited Data Labeling.**
Mehran Khodabandeh, Arash Vahdat, Guang-Tong Zhou, et al.
Workshop on Group and Crowd Behavior Analysis and Understanding (at CVPR), 2015.
- [ECCVW'14] • **Learning Action Primitives for Multi-Level Video Event Understanding.**
Tian Lan, Lei Chen, Zhiwei Deng, Guang-Tong Zhou and Greg Mori.
International Workshop on Visual Surveillance and Re-Identification (at ECCV), 2014.
- [ECCV'14] • **Discovering Video Clusters from Visual Features and Noisy Tags.**
Arash Vahdat, Guang-Tong Zhou and Greg Mori.
European Conference on Computer Vision, 2014.
- [NIPS'13] • **Latent Maximum Margin Clustering.**
Guang-Tong Zhou, Tian Lan, Arash Vahdat and Greg Mori.
Neural Information Processing Systems, 2013.
- [CVPR'13] • **Learning Class-to-Image Distance with Object Matchings.**
Guang-Tong Zhou, Tian Lan, Weilong Yang and Greg Mori.
IEEE Computer Vision and Pattern Recognition, 2013.
- [MLJ'13] • **Mass Estimation.**
Kai Ming Ting, Guang-Tong Zhou, Fei Tony Liu and Swee Chuan Tan.
Machine Learning Journal, 90(1):127-160, 2013.
- [PR'12] • **Relevance Feature Mapping for Content-Based Multimedia Information Retrieval.**
Guang-Tong Zhou, Kai Ming Ting, Fei Tony Liu and Yilong Yin.
Pattern Recognition, 45(4):1707-1720, 2012.
- [KDDW'10] • **Relevance Feature Mapping for Content-Based Image Retrieval.**
Guang-Tong Zhou, Kai Ming Ting, Fei Tony Liu and Yilong Yin.
Workshop on Multimedia Data Mining (at KDD), 2010.
- [KDD'10] • **Mass Estimation and Its Applications.**
Kai Ming Ting, Guang-Tong Zhou, Fei Tony Liu and Swee Chuan Tan.
ACM SIGKDD Conference on Knowledge Discovery and Data Mining, 2010.
- [EJASP'10] • **K-means Based Fingerprint Segmentation with Sensor Interoperability.**
Gongping Yang, Guang-Tong Zhou, Yilong Yin and Xiukun Yang.
EURASIP Journal on Advances in Signal Processing, 2010(1):729378, 2010.