

Yuxin Ma

VADER Lab, School of Computing, Informatics & Decision Systems Engineering (CIDSE), Arizona State University
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RESEARCH INTERESTS

- Information Visualization, Visual Analytics, Visual Data Mining

EDUCATION

- Ph.D. in Computer Science, Zhejiang University, China *Sept. 2012 - Dec. 2017*
 - Supervisor: Prof. Wei Chen
- Bachelor Degree in Software Engineering, Zhejiang University, China *Sept. 2008 - June 2012*

PROFESSIONAL EXPERIENCE

- Postdoctoral Research Associate, VADER Lab, CIDSE, Arizona State University *Apr. 2018 - present*
 - Principal Investigator: Prof. Ross Maciejewski
- Research Intern, SeSaMe Research Center, National University of Singapore *Jan. 2016 - Jan. 2017*
 - Supervised by Prof. Anthony K.H. Tung

PUBLICATIONS

- **Yuxin Ma**, Anthony K.H. Tung, Wei Wang, Xiang Gao, Zhigeng Pan, Wei Chen. A Deep Subjective Similarity Model for Visual Analysis of Scatterplots. *IEEE Transactions on Visualization and Computer Graphics*. 2018. (major revision)
- Jiazhi Xia, Fenjin Ye, Wei Chen, Yusi Wang, Weifeng Chen, **Yuxin Ma**, Anthony K.H. Tung. LDSScanner: Exploratory Analysis of Low-Dimensional Structures in High-Dimensional Data. *IEEE Transactions on Visualization and Computer Graphics* 24(1):192-207 (Proc. VAST 2017). 2018.
- Honghui Mei, **Yuxin Ma**, Yating Wei, Wei Chen. The Design Space of Construction Tools for Information Visualization: A Survey. *Proceedings of China Visualization (ChinaVis'17)*. 2017.
- **Yuxin Ma**, Wei Chen, Xiaohong Ma, Jiayi Xu, Xinxin Huang, Ross Maciejewski and Anthony K.H. Tung. EasySVM: A Visual Analysis Approach for Open-Box Support Vector Machines. *Computational Visual Media Journal* 3(2):161-175. 2017. (**Honorable Mention Award of CVMJ 2017**)
- **Yuxin Ma**, Jiayi Xu, Wei Chen, Xiangyang Wu and Fei Wang. A Visual Analytical Approach for Transfer Learning in Classification. *Information Science* 390:54-69. 2017.
- Junhua Lu, Wei Chen, **Yuxin Ma**, Junming Ke, Zongzhuang Li, Fan Zhang, and Ross Maciejewski. Recent Progress and Trends in Predictive Visual Analytics. *Frontiers of Computer Science* 11(2):192-207. 2017.
- Tianye Zhang, Xumeng Wang, Zongzhuang Li, Fangzhou Guo, **Yuxin Ma**, Wei Chen. A Survey of Network Anomaly Visualization. *Science China Information Sciences* 60(12):121101. 2017.
- **Yuxin Ma**, Tao Lin, Zhendong Cao, Chen Li and Wei Chen. Mobility Viewer: An Eulerian Approach for Studying Urban Crowd Flow. *IEEE Transactions on Intelligent Transportation Systems* 17(9):2627-2636. 2016.
- Xumeng Wang, Tianye Zhang, **Yuxin Ma**, Jing Xia, Wei Chen: A Survey of Visual Analytic Pipelines. *Journal of Computer Science and Technology* 31(4):787-804. 2016.
- Ramon Bospinyowong, Wei Chen, H. V. Jagadish, **Yuxin Ma**. ExRank: An Exploratory Ranking Interface. *Proceedings of the VLDB Endowment* 9(13). 2016.
- **Yuxin Ma**, Zhendong Cao and Wei Chen. A Survey of Visualization-driven Interactive Data Mining Approaches. *Journal of Computer-Aided Design and Computer Graphics*. 2015. (in Chinese)

- **Yuxin Ma**, Jiayi Xu, Dichao Peng, Ting Zhang, Chengzhe Jin, Huamin Qu, Wei Chen and Qunsheng Peng. A Visual Analysis Approach for Community Detection of Multi-Context Mobile Social Networks. *Journal of Computer Science and Technology* 28(5):797-809. 2013.

PROJECTS

- AntV G2 Library (<https://github.com/antvis/g2>), A visualization grammar with a high level of usability and scalability based on *The Grammar Of Graphics* Sept. 2015 - Jan. 2016
 - Responsible for collaboration between our research group and AntV
 - Joined the interface design of initial versions
 - Currently G2 is widely used in data visualization products in Alibaba Group and Ant Financial.

BOOK CHAPTERS

- **Yuxin Ma**, Wei Chen. “Chapter 3: Data” in *Data Visualization* 1st Edition (in Chinese). 2013. ISBN:9787121211546. China: Publishing House of Electronics Industry.

INVITED TALKS

- “Interactive Visual Data Mining”. The 9th Visualization Summer School of Zhejiang University. Zhejiang University, China July 2017
- “A Visual Analysis Approach for Apache Spark Running Performance”. SeSaMe Workshop. SeSaMe Research Center, National University of Singapore July 2016
- “High-dimensional Data Visualization”. The 8th Visualization Summer School of Zhejiang University. Zhejiang University, China Aug. 2016
- “Mobility Viewer: Visualizing Urban Crowd Flows”. SeSaMe Workshop. SeSaMe Research Center, National University of Singapore. Jan. 2016

TEACHING EXPERIENCE

- Teaching Assistant, Data Visualization (Lecturer: Prof. Wei Chen), Zhejiang University. Sept. 2013 - Jan. 2014
- Teaching Assistant, Data Visualization (Lecturer: Prof. Wei Chen), Zhejiang University. Sept. 2012 - Jan. 2013

HONORS AND AWARDS

- Honorable Mention Award of 2017, Computational Visual Media Journal 2018
- The Third Prize of Zengyong Lu CAD&CG High Technology Award, Zhejiang University 2016
- Honorable Graduate Student Award, Zhejiang University 2014, 2015, 2016

LANGUAGES

- **Chinese (Mandarin)** - Native
- **English** - Professional working proficiency

SKILLS

- **Programming Languages:** Python, JavaScript.
- **Operation Systems:** Ubuntu Linux.
- **Visualization Tools:** D3.js, Baidu Echarts, AntV G2.
- **Distributed Computing Platform:** Apache Spark.
- **Machine Learning Frameworks:** Python Scikit-learn, Keras.
- **Miscellaneous:** Vim, GNU Toolchain, Git, Subversion.