# Feng Wang

1 http://fwang49asu.github.io

## **Education**

**Arizona State University** 

**Computer Science** 

Ph.D., Advisor: Dr. Ross Maciejewski 2012-2017 (expected)

Visual Analytics Methods for Exploring Geographically Networked Phenomena

University of Science and Technology of China

**Computer Science** 

2009-2012

Master, Advisor: Prof. Zhangjin Huang **Shandong University** 

**Software Engineering** 

Bachelor, Diploma Project Mentor: Dr. Ming Sun

2005-2009

# **Working Experiences**

#### **Pacific Northwest National Laboratory**

**Visual Analytics Intern** 

Visualization for Climate Model Evaluation, Mentor: Dr. Aritra Dasgupta A visual analytics system for climate model performance comparison with task based visualization recommendation.

**Purdue University** 

2016.06-2016.08

Research Intern Visual Analytics of Network Heatmap, Collaborator: Shehzad Afzal 2015.06-2015.07

Integrating network heatmap algorithm into the VALET System

#### **Honors**

2015: Communications Impact Award, IEEE VGTC International Data-Visualization Contest

2013: Excellent Visual Analysis of Structured and Unstructured Data, VAST Box Office Challenge in IEEE VIS conference

2009: Meritorious Winner, Mathematical Contest in Modeling (MCM)

2008: Second Prize in Shandong Region, China Undergraduate MCM

2008: Shandong University Research and Innovation Scholarship

2008: Honorable Mention, Interdisciplinary Contest in Modeling (ICM)

2007: Honorable Mention, CitiBank Cup Technology Application Contest

2006: Shandong University Outstanding Student Scholarship

#### Skills

Programming Language: JAVA, Javascript, C++, C, CUDA, GLSL, SQL, Matlab, R

Operating System: Linux, Windows, MacOS

Database: MySQL, MongoDB, PostgresSQL, SQLServer, IBM DB2

Version Control: Git, SVN

Libraries and Frameworks: Jersey, D3, WebGL, Backbone, Express, Qt, Crow, OpenGL

Miscellaneous: NGINX, Apache HTTP Server, Tomcat, Eclipse, Visual Studio

# **Projects**

- Visual Analytics for Climate Model Evaluation
  - -Develop the visual analytics system and task based visualization recommendation.
  - -Skills: Javascript (Browser and Node.js)
- o Chicago Health Access, ongoing
  - -Investigate the relationship between public health conditions and heterogeneous data. GITHUB: https://github.com/Makosak/chihealthaccess
  - -Position: render the service range of medical facilities
  - -Skills: Javascript, C++
- Visual Analytics Law Enforcement Toolkit (VALET), ongoing
  - -A visual analytic system for police department to analyze crime spatiotemporal patterns, in collaboration with PURVAC.
  - -Position: Integration of street network information
  - -Skills: C++, OpenGL
- Foresight Initiative
  - -Analyze the relationship between climate change and social unrest in Africa. Project website: https://foresight.asu.edu/
  - -Position: Visual analysis design of social media and news media data
  - -Skills: Java, Javascript
  - -Position: data storage system architecture design
  - -Skills: MongoDB, node.js, Java
- Visual Analysis of Genealogy of US Surnames, ongoing
  - -Analyze the income inequity between different origins by linking US phonebook and heterogeneous data.
  - -Position: Development
  - -Skills: Java, PCA, KD-Tree, C++, Javascript, MySQL
- Visual Box Office Prediction with Social Media
  - -Predict box office income and rating with Twitter and bitly in the visual analytics approach
  - -Position: Server end development and interaction design of Webpages
  - -Skills: Java, Javascript, MySQL
- Error Analysis and Modeling Techniques for Subdivision Surfaces
- -Position: Non-uniform subdivision surface analysis and GPU acceleration
- -Skills: C++, CUDA, OpenGL
- The Development and Optimization of Communication and Mathematical Library for Loongson 3A CPU
  - -Position: Optimization for Blas Level 2 functions
  - -Skills: C++, C, MIPS64 assembly

### **Professional Activities**

#### Peer Review.....

- VAST Challenge (2016)
- International Journal of Geographical Information System (2016)
- EuroVis State of Art (STAR) (2016)

Teaching.

Spring 2011: JAVA Programming Language

Fall 2011: Advanced Computer Graphics

## **Publications**

- F. Wang, R. Maciejewski, and E. Mack, "Analyzing entrepreneurial social networks with big data," *Annuals of American Association of Geographers*, 2016.
- Y. Lu, X. Hu, F. Wang, S. Kumar, H. Liu, and R. Maciejewski, "Visualizing social media sentiment in disaster scenarios," in *The 3rd International Workshop on Social Web for Disaster Management (SWDM'15)*, 2015.
- Y. Lu, F. Wang, and R. Maciejewski, "Business intelligence from social media: A study from the vast box office challenge," *IEEE Computer Graphics and Applications*, 2014.
- Y. Lu, R. Kruger, D. Thom, F. Wang, S. Koch, T. Ertl, and R. Maciejewski, "Integrating predictive analytics and social media," in *Proceedings of the IEEE Conference on Visual Analytics Science and Technology, November*, 2014, 2014.
- F. Wang, J. Ibarra, A. Muhammad, P. A. Longley, and R. Maciejewski, "What's in a name? data linkage, demography and visual analytics," in *EuroVis Workshop on Visual Analytics*, *June*, 2014, 2014.
- Y. Lu, F. Wang, and R. Maciejewski, "Vast 2013 mini-challenge 1: Box office vast team vader," in *IEEE Conference on Visual Analytics Science and Technology, October*, 2013., 2013.
- F. Wang, Z. Huang, and L. Guo, "A mesh editing algorithm based on gaussian curvature," *Journal of Information & Computational Science*, 2013.
- Z. Huang, F. Wang, and G. Wang, "Extended Doo-Sabin surfaces," *Journal of Information & Computational Science*, 2011.
- L. Guo, F. Wang, Z. Huang, and N. Gu, "A fast and robust seed flooding algorithm on GPU for voronoi diagram generation," 2011.

Reference

Dr. Ross Maciejewski: E-mail: rmacieje@asu.edu