Shuchu Han

CONTACT INFORMATION	8655 Broadway APT 205 Elmhurst NY, USA 11373	*Phone:* * *E-mail:* * *Homepage:* www.cs.stonybrook.edu/~shhan/

BACKGROUND

- Born on October 1984.
- Citizen of P.R.China.

RESEARCH INTERESTS

- Machine learning and graph mining.
- Large scale semi-supervised learning and self-taught learning.
- Graph embedding, Text mining, Scientific visualization.
- Multi-source data integration and heterogeneous data mining.

EDUCATION

Stony Brook University (SUNY)   2011-2016
Ph.D., Computer Science.
Advisor: **Hong Qin.**

Nanyang Technological University, 2010   2008-2010
M.Eng., Computer Science, May 2010

Shandong University, 2008   2005-2008
M.Eng., Control Theory and Control Engineering, May 2008

Xi'an Jiaotong University, 2003   1998-2003
B.Eng., Electronic and Information Engineering, July 2003
Special Class for Gifted Young (1998-2000)

PROFESSIONAL EXPERIENCE

Research Assistant, Stony Brook University   2011-2016
Thesis Title: *S*parse Graph Representation and Its Applications.
Advisor: Hong Qin
- Sparse graph construction for improving the performance of graph-based learning algorithms.
- Graph mining, graph structure analysis and dense subgraph detection.

Research Assistant, Computational Science Center, Brookhaven National Lab   2012-2015
- System administrator for DOE kbase project(`http://kbase.us`).

Intern Scientist, Yahoo! Research,   Spring 2016
Manager: Yifan Hu
- Text mining, graph embedding, deep learning.
- Scientific visualization.

Software Engineer Intern, Siemens Healthcare Diagnostics,   Summer 2015

Research Engineer, National University of Singapore   2010-2011
Supervisor: Ping Tan
- Modeling 3D city from large scale laser-scanned point dataset.

Research Engineer, Nanyang Technological University   2008-2010
Supervisor: Ying He

- Geometry processing, scientific visualization.

- Volume mesh generation for arbitrary geometry shape. Computational geometry.

Research Engineer, Centre for Signal Processing,   2007-2008
Manager: Sre Wee
- video signal processing.

Research Engineer, SAMSUNG Electronics Ltd.,   2003-2004

JOURNAL
PUBLICATIONS

Shuchu Han, Hong Qin, *A Greedy Algorithm to Construct Sparse Graph by Using Ranked Dictionary*, Int. J. Data Science and Analytics (2016).

Shuchu Han, Jiazhi Xia, and Ying He. *Constructing hexahedral shell mesh via volumetric polycube map*, Computer-Aided Design, 2011.

CONFERENCE
PUBLICATIONS

Shuchu Han, Yifan Hu, Steven Skiena, Baris Coskun and Meizhu Liu. *Generating Look-alike Names via Distributed Representations.* Yahoo Tech Pulse (internal publication), 2016.

Shuchu Han and Hong Qin. *A Greedy Algorithm to Construct L1 Graph with Ranked Dictionary.* Pacific-Asia Conference on Knowledge Discovery and Data Mining. Springer International Publishing, 2016.

Shuchu Han and Hong Qin. *Structure Aware L1 Graph for Data Clustering.* Thirtieth AAAI Conference on Artificial Intelligence. 2016.

Hau Chan, Shuchu Han, and Leman Akoglu. *Where graph topology matters: the robust subgraph problem.* Proceedings of the 2015 SIAM international conference on data mining, SDM. Vol. 15. 2015. **(Best Research Paper Award)**.

Shuchu Han, Hao Huang, Hong Qin and Dantong Yu, Locality-Preserving L1-Graph and Its Application in Clustering.(ACM Symposium on Applied Computing, 2015)

Shuchu Han, Hong Qin, and Dantong Yu. *An Improved Ratio-Based (IRB) Batch Effects Removal Algorithm for Cancer Data in a Co-Analysis Framework.* Bioinformatics and Bioengineering (BIBE), 2014 IEEE International Conference on. IEEE, 2014. **(Best Student Paper Award)**.

Shuchu Han, Jiazhi Xia, Ying He. *Hexahedral shell mesh generation by volumetric parameterization.* Proceedings of ACM Symposium of Solid & Physical Modeling(SPM'10), accepted, 2010.

Jiazhi Xia, Ying He, Shuchu Han, Chi-Wing Fu, Feng Luo, Xianfeng Gu. *Parameterization of Star Shaped Volumes Using Green's Functions,* Proceedings of Geometric Modeling and Processing(GMP'10), accepted, 2010.

Jiazhi Xia, Ying He, Xiaotian Yin, Shuchu Han, Xianfeng Gu. *Direct-Product Volumetric Parameterization of Handlebodies via Harmonic Fields,* Proceedings of IEEE International Conference on Shape Modeling(SMI'10), accepted, 2010.

HONORS AND
AWARDS

Best Research Paper Award in SIAM Int. Conf. on Data Mining (SDM), 2015
Best Student Paper Award in IEEE Int. Conf. on BioInformatics and BioEngineering, 2014
President Scholarship for Overseas Study, Shandong University, 2007
The Third Prize Scholarship, Xi'an Jiaotong University, 1999

| OTHER EXPERIENCE | Vice Present, Computer Science Graduate Student Council (CSGSC), Department of Computer Science, Stony Brook University | 2013-2014 |

SKILLS

Proficient with: C, C++,Java,Python,Matlab
Familiar with: Javascript,SQL,Scala,Spark,Hadoop,R
Solid math background
Excellent teamwork
Strong problem-solving abilities

REFEREES

Available upon request