

## Shuchu Han

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CONTACT INFORMATION	2 Sherbrooke Dr Princeton Junction NJ, USA 08550	<i>Phone:</i> NA <i>E-mail:</i> shuchu.han@gmail.com <i>Homepage:</i> shuchu.github.io
BACKGROUND	<ul style="list-style-type: none"><li>• Born on October 1984.</li><li>• Permanent Resident of USA</li><li>• Citizen of P.R.China.</li><li>• Married with two daughters.</li></ul>	
RESEARCH INTERESTS	<ul style="list-style-type: none"><li>• Machine learning.</li><li>• Data mining, anomaly detection.</li><li>• Time series data, Graph data, Security log data.</li></ul>	
EDUCATION	<b>Stony Brook University (SUNY)</b>	2011-2017
	Ph.D, Computer Science, May 2017 Thesis Title: <i>Sparse Graph Representation and Its Applications.</i> Advisors: <b>Hong Qin</b>	
	<b>Nanyang Technological University (NTU)</b>	2008-2010
	M.Eng, Computer Science, May 2010 Thesis Title: <i>Quality Tetrahedral Mesh Generation for Volume Data Processing.</i> Advisor: <b>Ying He</b>	
	<b>Shandong University</b>	2005-2008
	M.Eng, Control Theory, May 2008 Thesis Title: <i>Impulsive synchronized chaotic communication system with time delay and parametric mismatch.</i> Advisors: <b>Chengjin Zhang, Changyun Wen</b> (NTU)	
	<b>Xi'an Jiaotong University</b>	1998-2003
HONORS AND AWARDS	Special Class for Gifted Young (1998-2000)	
	B.Eng, Electronic and Information Engineering, July 2003	
	Thesis Title: <i>Wireless File Transfer System Based on Bluetooth Protocol V1.1.</i>	
	Advisor: <b>En-Xin Feng</b> .	
EXPERIENCE	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 Study Abroad, Shandong University, 2007	
	The Third Prize Scholarship, Xi'an Jiaotong University, 1999	
	<b>Data Scientist, devo.com</b>	2022/08-now
	Manager: Dr. Chaz Lever, Dr. Kevin Zhou - Work on ETL data pipeline with AWS Managed Airflow, and Kafka.	
	<b>Senior Security Machine Learning Researcher, StellarCyber.ai</b>	2020/03-2022/08
	Manager: Dr. Albert Zhichun Li - Work on real-time detection engine for security log data.	

	<b>Senior Associate Researcher, NEC Labs</b> Manager: Dr. Haifeng Chen - Work on anomaly detection and causality analysis over multivariate time series.	2017/06-2020/02
	<b>Intern Scientist, Yahoo! Research,</b> Mentor: Dr. Yifan Hu, Dr. Baris Coskun - Text mining, graph embedding, deep learning. - Scientific visualization.	2016-2017
	<b>Software Engineer Intern, Siemens Healthcare Diagnostics,</b> Manager: Dr. Zhenrong Xiao	Summer 2015
	<b>Research Assistant, Stony Brook University</b> Advisors: Dr. Hong Qin, Dr. Leman Akoglu - Researching on sparse graph representation. - Researching on graph mining, graph structure analysis and dense subgraphs mining.	2012-2015
	<b>Research Assistant, Computational Science Center, Brookhaven National Lab</b> Mentor: Dr. Dantong Yu - System Administrator for DOE kbase project( <a href="http://kbase.us">http://kbase.us</a> ) at BNL site. - Manage and maintain HPC cluster service with other three national labs: ANL, LBNL and ORNL. description	2012-2015
	<b>Teaching Assistant, Stony Brook University</b>	2011-2012
	<b>Research Engineer, National University of Singapore</b> Mentor: Dr. Ping Tan - Large scale 3D city scene modeling from LIDAR point clouds.	2010-2011
	<b>Research Engineer, Nanyang Technological University</b> Advisor: Dr. Ying He - Computational geometry, geometry processing, scientific visualization. - Volume mesh generation from arbitrary geometry shape.	2008-2010
	<b>Research Engineer, Centre for Signal Processing, NTU</b> Manager: Dr. Sre Wee - Video signal processing.	2007-2008
	<b>Research Engineer, SAMSUNG Electronics Ltd.,</b>	2003-2004
PROFESSIONAL ACTIVITIES AND SERVICES	PC Member/Reviewer: CIKM 2017, WSDM 2019, 2020, 2021, SIGIR 2020 Vice Present, Computer Science Graduate Student Council (CSGSC), Department of Computer Science, Stony Brook University	2013-2014
TEACHING EXPERIENCE	<b>Teaching Assistant, Stony Brook University,</b> • CSE528, Computer Graphics, 2012 Fall. • CSE306, Operating System, 2012 Spring. • CSE548/AMS542, Analysis of Algorithm, 2011 Fall. • CSE328, Fundamental of Computer Graphics, 2011 Spring.	2011-2012

- CSE130, Introduction to Programming in C Language, 2011 Spring.

## JOURNAL PUBLICATIONS

Pengfei Xu, Shuchu Han, Hao Huang, Hong Qin, *Redundant Features Removal for Unsupervised Spectral Feature Selection Algorithms: An Empirical Study based on Nonparametric Sparse Feature Graph*, Int. J. Data Science and Analytics (2018)

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, Meizhu Liu, Hong Qin, *Generating Look-alike Names For Security Challenges*, AISEC (2017)

Junting Ye, Shuchu Han, Yifan Hu, Baris Coskun, Meizhu Liu, Hong Qin, Steven Skiena, *Nationality Classification using Name Embeddings*, CIKM (2017)

Shuchu Han, Yifan Hu, Steven Skiena, Baris Coskun and Meizhu Liu. *Generating Look-alike Names via Distributed Representations*, Yahoo Tech Pulse, 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 Handle bodies via Harmonic Fields*, Proceedings of IEEE International Conference on Shape Modeling(SMI'10), accepted, 2010.

## REFEREES

**Available upon request**