

# Qi Yu

## Curriculum Vitae

September 2016

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### RESEARCH INTEREST

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Large-scale data management and analytics, with an emphasis on developing fundamental data mining and machine learning models and algorithms that can be used to analyze massive modern data collections generated from diverse domains, such as service-oriented Big data (QoS and service description data) and large-scale unstructured data (e.g., social media data and electronic health records). [h-index: 19; i10-index:26]

### EDUCATION

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<b>Virginia Tech</b> Ph. D. in Computer Science Dissertation: Foundational Framework for Service Query Optimization Advisor: Athman Bouguettaya	Blacksburg, VA <i>August 2008</i>
<b>National University of Singapore</b> M. E. in Computer Engineering Thesis: Intelligent Data Mining via Evolutionary Computing Advisor: Kay Chen Tan	Singapore <i>July 2003</i>
<b>Zhejiang University</b> B. E. in Electrical Engineering	Hangzhou, China <i>July 2001</i>

### EMPLOYMENT

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<b>Associate Professor and Graduate Program Director</b> Department of Information Sciences and Technologies Rochester Institute of Technology, Rochester NY	August 2014 –
<b>Assistant Professor</b> Department of Information Sciences and Technologies Rochester Institute of Technology, Rochester NY	Sep 2008 - July 2014
<b>Research Assistant</b> Department of Computer Science Virginia Tech, Blacksburg VA	Sep 2003 - Jul 2008
<b>Summer Intern</b> Emerging Technology Team IBM Software Group, Austin TX	May - August 2007
<b>Research Intern</b> Bosch Research, Palo Alto CA	May - August 2006
<b>Research Assistant</b> Department of Electrical and Computer Engineering National University of Singapore, Singapore	July 2001 - July 2003

### SCIENTIFIC AND PROFESSIONAL SOCIETIES MEMBERSHIPS

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- Member of IEEE

- Member of IEEE Computer Society

## PUBLICATIONS

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### Book

- B.1. **Q. Yu** and A. Bouguettaya, *Foundations for Efficient Web Service Selection*, Springer-Verlag, ISBN: 978-1-4419-0313-6, August 2009.

### Edited Conference Proceedings

- E.1. C.Liu, H. Ludwig, F. Toumani, and **Q. Yu** (Eds.), *10th International Conference, ICSOC 2012 Shanghai, China, November 12-15, 2012 Proceedings*, Springer-Verlag, ISBN: 978-3-642-34320-9.
- E.2. A. Ghose, H. Zhu, **Q. Yu**, A. Delis, Q. Sheng, O. Perrin, J. Wang, and Y. Wang (Eds.), *ICSOC 2012, International Workshops ASC, DISA, PAASC, SCEB, SeMaPS, WESOA, and Satellite Events, Shanghai, China, November 12-15, 2012, Revised Selected Papers*, Springer-Verlag, ISBN: 978-3-642-37803-4.

### Journals

- J.1. X. Guo, **Q. Yu**, R. Li, C. Alm, C. Calvelli, P. Shi, and A. Haake, Intelligent Medical Image Grouping through Interactive Learning , *International Journal of Data Science and Analytics (JDSA)*, Accepted, 2016.
- J.2. Bouguettaya, A., Singh, M., Huhns, M., Sheng, Q.Z., Dong, H., **Yu, Q.**, Neiat, A.G., Mistry, S., Benatallah, B., Medjahed, B., Ouzzani, M., Casati, F., Liu, X., Wang, H., Georgakopoulos, D., Chen, L., Nepal, S., Malik, Z., Erradi, A., Wang, Y., Blake, B., Dustdar, S., Leymann, F., Papazoglou, M., A Service Computing Manifesto: The Next Ten Years, *Communications of the ACM (CACM)*, Accepted, 2016 (PDF).
- J.3. H. Wang, C. Yu, L. Wang, and **Q. Yu**, Effective BigData-Space Service Selection over Trust and Heterogeneous QoS Preferences, *IEEE Transactions on Services Computing (TSC)*, Accepted, 2016 (PDF).
- J.4. H. Wang, X. Wang, X. Zhang, **Q. Yu**, and X. Hu, Effective service composition using multi-agent reinforcement learning, *Knowledge-Based Systems*, Accepted, 2016 (PDF).
- J.5. **Q. Yu**, CloudRec: A Framework for Personalized Service Recommendation in the Cloud, *Knowledge and Information Systems (KAIS)*, vol. 43, no. 2, pp. 417-443, 2015,
- J.6. A. Bouguettaya, **Q. Yu**, X. Liu, X. Zhou, A. Song, Efficient agglomerative hierarchical clustering. *Expert Systems with Applications* 42(5): 2785-2797, 2015.
- J.7. J. Wu, L. Chen, Q. Yu, P. Han, and Z. Wu, Trust-aware media recommendation in heterogeneous social networks. *World Wide Web* 18(1): 139-157, 2015.
- J.8. X. Guo, **Q. Yu**, C. Alm, C. Calvelli, J. Pelz, P. Shi, and A. Haake, From spoken narratives to domain knowledge: Mining linguistic data for medical image understanding , *International Journal of Artificial Intelligence in Medicine (AIIM)*, vol. 62, no. 2, pp. 79-90, 2014.
- J.9. X. Chen, Z. Zheng, **Q. Yu**, and M. Lyu, Web Service Recommendation via Exploiting Location and QoS Information, *IEEE Transactions on Parallel and Distributed Systems (TPDS)*, vol. 25, no. 7, pp. 1913-1924, 2014.
- J.10. **Q. Yu**, QoS-aware Service Selection via Collaborative QoS Evaluation, *World Wide Web Journal (WWWJ)*, vol. 14, no. 1, pp. 33-57, 2014.
- J.11. **Q. Yu**, Efficient Large-scale Service Clustering via Sparse Functional Representation and Accelerated Optimization, *International Journal of Cooperative Information Systems (IJCIS)*, vol. 22, no. 4, 2013.
- J.12. J. Wu, L. Chen, **Q. Yu**, L. Kuang, and Y. Wang, Z. Wu, Selecting Skyline Services for QoS-aware Composition by Upgrading MapReduce Paradigm, *Cluster Computing*, vol. 16, no. 4, pp 693-706, 2013.

- J.13. P. Andhale, M. Rege, and **Q. Yu**, Discovering Heterogeneous Evolving Web Service Communities Using Semi-Supervised Non Negative Matrix Factorization, *International Journal of Machine Learning and Computing (IJMLC)*, vol. 3, No. 2, 2013.
- J.14. **Q. Yu** and A. Bouguettaya, Efficient Service Skyline Computation for Composite Service Selection, *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, IEEE, vol. 25, No. 4, 2013.
- J.15. **Q. Yu** and J. Kang, Integrating User Invocation Data and Extended Semantics for Service Community Discovery, *International Journal of Next-Generation Computing (IJNGC)*, vol. 3, no. 2, 2012.
- J.16. **Q. Yu** and A. Bouguettaya, Multi-Attribute Optimization in Service Selection, *World Wide Web Journal (WWWJ)*, Springer, vol. 15, no. 1, 2012.
- J.17. A. Bouguettaya, **Q. Yu**, X. Liu, Z. Malik, Service-centric Framework for a Digital Government Application, *IEEE Transactions on Services Computing (TSC)*, IEEE, vol. 4, no.1, pp. 3-16, 2011.
- J.18. K. Xu, **Q. Yu**, Q. Li, J. Zhang, and A. Bouguettaya, Web Service Management System for Bioinformatics Research: A Case Study, *Service Oriented Computing and Applications (SOCA)*, Springer, vol. 5, no. 1, pp. 1–15, 2011.
- J.19. X. Liu, A. Bouguettaya, **Q. Yu**, and Z. Malik, Efficient Change Management in Long Term Composed Services, *Service Oriented Computing and Applications (SOCA)*, Springer, vol. 5, no. 2, pp. 87–103, 2011.
- J.20. **Q. Yu** and A. Bouguettaya, Computing Service Skyline from Uncertain QoWS, *IEEE Transactions on Services Computing (TSC)*, IEEE, vol. 3, no.1, pp. 17-29, 2010.
- J.21. **Q. Yu** and A. Bouguettaya, Special Section on Query Models and Efficient Selection of Web Services, *IEEE Transactions on Services Computing (TSC)*, IEEE, vol. 3, no.3, pp. 161-162, 2010.
- J.22. **Q. Yu**, M. Rege, A. Bouguettaya, B. Medjahed, and M. Ouzzani, A Two-phase Framework for Quality-aware Web Service Selection, *Service Oriented Computing and Applications (SOCA)*, vol. 4, no. 2, pp. 63–79, 2010.
- J.23. K. C. Tan, E. J. Teoh, **Q. Yu** and K. C. Goh, A hybrid evolutionary algorithm for attribute selection in data mining, *Expert Systems With Applications: An International Journal*, Elsevier, vol. 36, no. 4, 2009.
- J.24. M. Rege and **Q. Yu**, Efficient Mining of Heterogeneous Star-structured Data, *International Journal of Software and Informatics*, Chinese Academy of Sciences, vol. 2, no. 2, pp. 141-161, 2008.
- J.25. **Q. Yu** and A. Bouguettaya, Framework for Web Service Query Algebra and Optimization, *ACM Transactions on the Web (TWEB)*, ACM Press, vol. 2, no. 1, pp. 1-35, 2008.
- J.26. **Q. Yu**, X. Liu, A. Bouguettaya, and B. Medjahed, Deploying and Managing Web Services: Issues, Solutions, and Directions, *International Journal on Very Large Data Bases (VLDB Journal)*, Springer, vol. 17, no. 3, pp. 537-572, 2008.
- J.27. K. C. Tan, **Q. Yu**, and J. H. Ang, A dual-objective evolutionary algorithm for rules extraction in data mining, *Computational Optimization and Applications*, Springer, vol. 34, pp. 273-294, 2006.
- J.28. K. C. Tan, **Q. Yu**, J. H. Ang, and T. H. Lee, A coevolutionary algorithm for rules discovery in data mining, *International Journal of Systems Science*, Taylor & Francis, vol. 37, no. 12, pp. 835-864, 2006.
- J.29. K. C. Tan, **Q. Yu**, and T. H. Lee, A distributed coevolutionary classifier for knowledge discovery in data mining, *IEEE Transactions on Systems, Man and Cybernetics: Part C (Applications and Reviews)*, IEEE, vol. 35, no. 2, pp. 131-142, 2005.
- J.30. K. C. Tan, **Q. Yu**, C. M. Heng, and T. H. Lee, Evolutionary computing for knowledge discovery in medical diagnosis, *Artificial Intelligence in Medicine*, Elsevier, vol. 27, no. 2, pp. 129-154, 2003.

### Book Chapters

- T.1. S. Naik and **Q. Yu**, Evolutionary Influence Maximization in Viral Marketing, *Recommendation and Search in Social Networks*, New York, NY: Springer, 2015. pp. 217-247.
- T.2. **Q. Yu**, On bootstrapping web service recommendation, *Web Services Foundations*, pp. 589-608, Springer, 2014.
- T.3. A. Knight, **Q. Yu**, and M. Rege, Efficient Range Query Processing on Complicated Uncertain Data, *Information Reuse and Integration in Academia and Industry*, Springer, 2013.
- T.4. A. Bouguettaya and **Q. Yu**, Clustering Analysis of Data with High Dimensionality, *Encyclopedia of Data Warehousing and Mining - 2nd Edition*, Idea Group Publishing, pp. 237-245, 2008.
- T.5. **Q. Yu**, K. C. Tan, and T. H. Lee, An evolutionary algorithm for rules discovery in data mining, *Evolutionary Computation in Data Mining*, A. Ghosh and L. C. Jain (Eds.), Physica-Verlag, Germany, pp. 101-123, 2005.

### Conferences

- C.1. X. Liu, S. Argwal, C. Ding, and **Q. Yu**, A LDA-SVM Active Learning Framework for Web Service Classification , IEEE International Conference on Web Services (ICWS), San Francisco, 2016 (Research Track: 13%).
- C.2. H. Wang, G. Huang, and **Q. Yu**, Automatic Hierarchical Reinforcement Learning for Efficient Large-scale Service Composition , IEEE International Conference on Web Services (ICWS), San Francisco, 2016 (Research Track: 13%).
- C.3. H. Wang, X. Zhang, and **Q. Yu**, Integrating POMDP and SARSA(?) for Service Composition with Incomplete Information, 13th International Conference on Service Oriented Computing (ICSOC 2016), Alberta, Canada, 2016 (Short reserach paper).
- C.4. Y. Wan, L. Chen, **Q. Yu**, T. Liang, and J. Wu, Incorporating Heterogeneous Information for Mashup Discovery with Consistent Regularization , 20th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD), Auckland, New Zealand, 2016.
- C.5. X. Guo, **Q. Yu**, R. Li, C. Alm, C. Calvelli, P. Shi, and A. Haake, An Expert-in-the-loop Paradigm for Learning Medical Image Grouping , 20th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD), Auckland, New Zealand, 2016.
- C.6. A. Jain, X. Liu, and **Q. Yu**, Aggregating Functionality, Use History, and Popularity of APIs to Recommend Mashup Creation, 12th International Conference on Service Oriented Computing (ICSOC 2015), Goa India, 2015, pp. 188-202 (Full research paper: 16%).
- C.7. H. Wang, Q. Wu, and X. Chen, and **Q. Yu**, Integrating Gaussian Process with Reinforcement Learning for Adaptive Service Composition, 12th International Conference on Service Oriented Computing (ICSOC 2015), Goa India, 2015, pp. 203-217, (Full research paper: 16%).
- C.8. **Q. Yu**, H. Wang, and L. Chen, Learning Sparse Functional Factors for Large-scale Service Clustering, IEEE International Conference on Web Services (ICWS), New York, 2015, pp. 201-208, (Research Track: 17.4%).
- C.9. L. Chen, **Q. Yu**, and J. Wu, WS-HFS: A Heterogenous Feature Selection Framework for Web Services Mining, IEEE International Conference on Web Services (ICWS), New York, 2015, pp. 193-200, (Research Track: 17.4%).
- C.10. X. Liu, A. Kale, J. Wasani, C. Ding, and **Q. Yu**, Extracting, Ranking, and Evaluating Quality Features of Web Services through User Review Sentiment Analysis, IEEE International Conference on Web Services (ICWS), New York, 2015, pp. 153-160, (Research Track: 17.4%).
- C.11. W. Yao, L. Chen, J. Wu, and **Q. Yu**, Time-aware API Popularity Prediction via Heterogeneous Features, IEEE International Conference on Web Services (ICWS), New York, 2015, pp. 424-431, (Application Track: 21.9%).

- C.12. H. Wang, S. Zhou, and **Q. Yu**, Requirement Decomposition Through Service Discovery, *IEEE International Conference on Web Services (ICWS)*, New York, 2015, pp. 743-746, (Short Paper Track).
- C.13. J. Bullard, R. Murde, **Q. Yu**, C. Alm, and R. Proao: Inference from Structured and Unstructured Electronic Medical Data for Dementia Detection. 14th *INFORMS Computing Society Conference* Richmond, Virginia, January 11-13, 2015, 236-244.
- C.14. Joseph Bullard, Cecilia Ovesdotter Alm, **Qi Yu**, Pengcheng Shi, Anne R. Haake: Towards multimodal modeling of physicians' diagnostic confidence and self-awareness using medical narratives. *COLING 2014*: 1718-1727
- C.15. Xuan Guo, Rui Li, Cecilia Ovesdotter Alm, **Qi Yu**, Jeff B. Pelz, Pengcheng Shi, Anne R. Haake: Infusing perceptual expertise and domain knowledge into a human-centered image retrieval system: a prototype application. *ETRA 2014*: 275-278
- C.16. Xuan Guo, **Qi Yu**, Rui Li, Cecilia Ovesdotter Alm, Anne R. Haake: Fusing Multimodal Human Expert Data to Uncover Hidden Semantics. *GazeIn@ICMI 2014*: 21-26
- C.17. Hongbing Wang, Xin Chen, Qin Wu, **Qi Yu**, Zibin Zheng, Athman Bouguettaya: Integrating On-policy Reinforcement Learning with Multi-agent Techniques for Adaptive Service Composition. *ICSOC 2014*: 154-168 (Acceptance rate: 15%).
- C.18. Hongbing Wang, Qin Wu, Xin Chen, **Qi Yu**, Zibin Zheng, Athman Bouguettaya: Adaptive and Dynamic Service Composition via Multi-agent Reinforcement Learning. *ICWS 2014*: 447-454
- C.19. Hongbing Wang, Lei Wang, **Qi Yu**, Zibin Zheng: A Novel Online Reliability Prediction Approach for Service-Oriented Systems. *ICWS 2014*: 582-589
- C.20. **Q. Yu**, Z. Zheng, and H. Wang Trace Norm Regularized Matrix Factorization for Service Recommendation, *IEEE International Conference on Web Services (ICWS 2013)*, Santa Clara CA, 2013 (Acceptance rate 19%).
- C.21. L. Chen, Y. Wang, **Q. Yu**, Z. Zheng, and J. Wu, WT-LDA: User Tagging Augmented LDA for Web Service Clustering, *11th International Conference on Service Oriented Computing (ICSOC 2013)*, Berlin, Germany, 2013 (Acceptance rate 13%).
- C.22. L. Wang, H. Wang, **Q. Yu**, H. Sun, and A. Bouguettaya, Online Reliability Time Series Prediction for Service-Oriented System of Systems, *11th International Conference on Service Oriented Computing (ICSOC 2013)*, Berlin, Germany, 2013 (Short paper, acceptance rate 22%).
- C.23. H. Wang, X. Sun, and **Q. Yu** Reliable Service Composition via Automatic QoS Prediction, *10th IEEE International Conference on Services Computing (SCC 2013)*, Santa Clara CA, 2013.
- C.24. H. Wang, X. Wang, and **Q. Yu** Optimal Self-Healing of Service-Oriented Systems with Incomplete Information, *IEEE Big Data Congress*, Santa Clara CA, 2013.
- C.25. S. Naik, **Q. Yu**, Evolutionary User Selection to Maximize the Influence of Viral Marketing, *The IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM)*, Niagara Falls, Ontario, Canada, 2013 (Poster, acceptance rate 36%).
- C.26. **Q. Yu**, Sparse Functional Representation for Large-scale Service Clustering, *10th International Conference on Service Oriented Computing (ICSOC 2012)*, Shanghai, China, 2012 (Acceptance rate 17%).
- C.27. **Q. Yu**, Decision Tree Learning from Incomplete QoS to Bootstrap Service Recommendation, *IEEE International Conference on Web Services (ICWS)*, Honolulu Hawaii, 2012 (Acceptance rate 17%).
- C.28. **Q. Yu**, Place Semantics into Context: Service Community Discovery from the WSDL Corpus, *9th International Conference on Service Oriented Computing, ICSOC 2011*, Cyprus, 2011 (Acceptance rate 16%).



- C.29. A. Knight, **Q. Yu**, M. Rege, Efficient range query processing on uncertain data, *IEEE International Conference on Information Reuse and Integration, IRI 2011*, Las Vegas, Nevada, 2011 (An extended version has been invited to submit to Information Reuse and Integration in Academia and Industry, Springer).
- C.30. **Q. Yu** and M. Rege, On Service Community Learning: A Co-Clustering Approach, *IEEE International Conference on Web Services (ICWS)*, Miami FL, 2010 (Acceptance rate 17%).
- C.31. **Q. Yu** and A. Bouguettaya, Computing Service Skylines over Sets of Services, *IEEE International Conference on Web Services (ICWS)*, Miami FL, 2010 (Acceptance rate 17%).
- C.32. B. Desai, P. Andhale, M. Rege, and Q. Yu, Biclustering and Feature Selection Techniques in Bioinformatics, *Workshop on Data Mining with Graphs and Matrices (WDGM10), in conjunction with International Conference on Data Engineering and Management (ICDEM)*, TN, India, 2010.
- C.33. **Q. Yu** and M. Rege, A Relational Approach for Efficient Service Selection, *IEEE International Conference on Web Services (ICWS)*, Los Angeles, 2009 (Acceptance rate 18%).
- C.34. A. Bouguettaya, D. Gracanin, **Q. Yu**, X. Zhang, X. Liu, Z. Malik, and A. Rezgui, WebSenior: A Digital Government Infrastructure for Senior Citizens, *International Workshop on the Management of Business Processes in Government*, co-located with 5th International Conference on Business Process Management (BPM 2007) , Brisbane, Australia, September 2007.
- C.35. A. Bouguettaya, D. Gracanin, **Q. Yu**, X. Zhang, X. Liu, and Z. Malik, Ubiquitous Web services for E-Government Social Services, *AAAI Spring Symposium The Semantic Web Meets eGovernment*, Stanford University, California, USA, March 27-29, 2006.
- C.36. A. Bouguettaya, B. Medjahed, A. Rezgui, M. Ouzzani, X. Liu, **Q. Yu**, WebDG - A Platform for E-Government Web Services, *ER (Workshops) 2004*: 553-565

#### Patent

1. **Q. Yu**, F. Weng, and Y. Meng, Method and system for implementing multiple web services for a service query, EP Patent 2,096,594.

#### PRESENTATIONS

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1. Learning Sparse Functional Factors for Large-scale Service Clustering, *IEEE International Conference on Web Services (ICWS)*, New York, NY, June 2015.
2. WS-HFS: A Heterogenous Feature Selection Framework for Web Services Mining, *IEEE International Conference on Web Services (ICWS)*, New York, NY, June 2015.
3. Predicting Dynamic Requests Behavior in Long-Term IaaS Service Composition, *IEEE International Conference on Web Services (ICWS)*, New York, NY, June 2015.
4. One Large-scale Service Clustering: Sparse Coding and Probabilistic Modeling, RMIT, Melbourne, December 2014.
5. Big Data Analytics in Service Computing, *University of Rochester*, Rochester NY, April 2014.
6. Trace Norm Regularized Matrix Factorization for Service Recommendation, *IEEE International Conference on Web Services (ICWS 2013)*, Santa Clara CA, June 2013
7. Big Data Analytics in Service Computing, *Upper State New York Oracle User Group*, Buffalo State University, Buffalo NY, June 2013.
8. Efficient Large-scale Service Clustering, *GCCIS PhD Colloquium Series*, Rochester Institute of Technology, Rochester NY, February 2013.
9. Sparse Functional Representation for Large-scale Service Clustering, *10th International Conference on Service Oriented Computing (ICSOC 2012)*, Shanghai, China, November 2012.
10. Decision Tree Learning from Incomplete QoS to Bootstrap Service Recommendation, *IEEE International Conference on Web Services (ICWS)*, Honolulu, Hawaii, June 2012.

11. Place Semantics into Context: Service Community Discovery from the WSDL Corpus, *9th International Conference on Service Oriented Computing, ICSOC 2011*, Paphos Cyprus, December 2011.
12. On Service Community Learning: A Co-Clustering Approach, *IEEE International Conference on Web Services (ICWS)*, Miami FL, June 2010
13. Computing Service Skylines over Sets of Services, *IEEE International Conference on Web Services (ICWS)*, Miami FL, June 2010
14. A Relational Approach for Efficient Service Selection, *IEEE International Conference on Web Services (ICWS)*, Los Angeles, June 2009
15. A Web Service Management Module for GIS, Robert Bosch LLC, Palo Alto, CA, August 2006
16. Ubiquitous Web services for E-Government Social Services, *AAAI Spring Symposium The Semantic Web Meets eGovernment*, Stanford University, CA, April 2006.

## RESEARCH EXHIBITIONS

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1. Big Data Analytics, Rajendra K Raj, Carol Romanowski, Xumin Liu, and **Qi Yu**, *ImagineRIT*, May 2013.
2. Big Data Stream Processing and Mining, Saravana Kumar and **Qi Yu** (faculty mentor), *ImagineRIT*, May 2013.
3. Social Network Recommendations Using Map Reduce, Saravana Kumar and **Qi Yu** (faculty mentor), *ImagineRIT*, May 2013.

## TEACHING EXPERIENCE

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- **Courses taught at Rochester Institute of Technology:**

- Data Driven Knowledge Discovery (ISTE-780): Fall 2014, 2015
- Knowledge Processing Technologies (ISTE-612): Spring 2013, 2014, Fall 2014, 2015
- Database Connectivity and Access (ISTE-330/722): Fall 2013, Spring 2013
- Problem Solving in Information Technology I (ISTE-120): Fall 2013
- Data Modeling and Database Implementation (4002-720): Fall 2010, 2011, Winter 2011
- Introduction to Database and Data Modeling (4002-360): Fall 2008, 2009, Winter 2010
- Fundamentals of Data Modeling (4002-461): Fall 2008
- Database Client/Server Connectivity (4002-484/784): Winter 2008, 2009, 2012, Spring 2008, 2009, 2010, 2012
- Web Database Integration (4004-751): Spring 2008
- Introduction to IT Programming I (4002-217): Fall 2009, 2010, 2011, 2012
- Introduction to IT Programming II (4002-218): Winter 2009
- Introduction to IT Programming III (4002-219): Fall 2012

- **Teaching Assistant.** CS1044: Introduction to Programming in C, Prof. Dwight Barnette, Fall 2005 and Spring 2006, Virginia Tech.
- **Teaching Assistant.** CS5614: Database Management Systems, Prof. Athman Bouguettaya, Fall 2004, Virginia Tech.
- **Instructor.** CS1604: Introduction to the Internet (jointly with Prof. Dwight Barnette), Fall 2006 and Spring 2007, Virginia Tech.
- **Master Student Mentor.** Design and Implement a Two-phase Data Clustering Algorithm, Spring 2005, Virginia Tech.
- **Undergraduate Final Year Project Mentor.** A Genetic Algorithm for Data Mining, Spring 2003, National University of Singapore.

## STUDENT ADVISING

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### PhD Advisor

1. Moayad Alshangiti (Started in Fall 2016)
2. Weishi Shi (Started in Fall 2016, co-advised with Dr. Anne Haake)

### PhD Committee:

1. Xuan Guo, GCCIS PhD student under supervision by Dr. Anne Haake (Passed proposal exam in Nov. 2015)

### Advisor of Master's Thesis/Project:

1. Praveen Adivi – Keyword Search on RDBMS, defended in July 2011.
2. Harpreet Saini – Building a Web Service Engine in the Cloud, defended in May 2011
3. Manish Gupta – University Search Portal, defended in October 2011
4. Pratul Sanwal – Universities Statistics Dashboard using SVG, defended in October 2011
5. Chintan Mota – An Analytical Tool for Internet Market Analysis, defended in February 2012
6. Mandvika Rathore – CareerVia: An Informatics Project, defended in May 2012
7. Adrian Dsouza – Web Services Mash-up, defended in June 2012
8. Sanat Anchan – CapstoneTrac: Capstone Management Tool, defended in August 2012
9. Parag Shah – Check-in Application to Record Bills in Social Circle, defended in December 2012
10. Sanket Anil Naik – Evolutionary User Selection to Maximize the Influence of Viral Marketing, defended in April 2013
11. Daulet Abylkassymov – Library User System with a Cloud-based Phone Infrastructure, defended in May 2013
12. Hiral Chauhan – Opinion-based Personalized Rating System, defended in July 2013
13. Pawan Ogireddy – Twitter Data Warehouse for Movie Analytics, defended in May 2014
14. Nasser Allheeib – HFSF: HALAL Food and Stores Finder, defended in August 2014
15. Jayashree Srinivasan – Time Series Based Classification on Electroencephalography (EEG) Data: A comparative study, defended in January 2015.
16. Javed Wasani – Mining Unstructured Data to Extract Meaningful Keywords for Large-Scale Data Analysis, defended in June 2015.
17. Moayad Alshangiti – Exploring News Content for Popularity Prediction, defended in June 2015.
18. Hai Nguyen – A Low-Cost Warehouse Management Solution for Small Businesses, defended in August 2015.
19. Balasurbramanian Rajagopal – Comparison of approaches used in Recommender Systems, defended in August 2015.
20. Arpeet Kale – Comparison of Supervised and Hybrid Topic Modeling for Extraction, Ranking and Evaluation of Quality Features of Web Services and User Review Sentiment Analysis, defended in December 2015.

### Committee Member of of Master's Thesis/Project:

- Served on 12 MS thesis/project committees



**Advisor of Independent Study:**

- Sponsored 13 independent studies

**SERVICE TO ROCHESTER INSTITUTE OF TECHNOLOGY**

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**College Committees**

1. GCCIS Trustee Scholarship Committee, 2010 – 2015
2. GCCIS Tenure Expectation Committee, 2014
3. GCCIS FEAD Committee, 2011 – 2014
4. GCCIS Seed Proposal Review Committee, 2012
5. GCCIS Visiting Scholar Committee, 2009 – 2011

**Department Committees**

1. IST Department Curriculum Committee (Chair), 2016 –
2. IST Department Search Committee (Co-chair), 2013 – 2014
3. IST Department Graduate Curriculum Committee, 2011 – 2012
4. IST Department Undergraduate Curriculum Committee, 2009 – 2011

**PROFESSIONAL SERVICES**

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**Grant Review Panel**

- National Science Foundation (NSF) review panels: SBIR/STTR program (2009, 2015, 2016), CISE CRI program (2013), CISE BigData program (2014)

**Editorial Board**

- The Scientific World Journal (TSWJ). 2014 –
- International Journal of Cloud Computing (IJCC). 2013 –
- International Journal of Big Data Technologies (IJBDT). 2013 –
- International Journal of Web Science (IJWS). 2010 – present.
- International Journal of Information Systems in the Service Sector (IJISSS). 2008 –
- International Journal of Data Mining, Modeling and Management (IJDMMM). 2008 –

**Guest Editor**

- IEEE Transactions on Big Data (IEEE TBD), Special issue on Big Data on the Web, 2015
- IEEE Transactions on Services Computing (IEEE TSC), Special issue on service query models and efficient selection, 2010

**Conference Organization**

1. Publication chair: International Conference on Service Oriented Computing (ICSOC 2012)
2. Track chair: IEEE International Conference on Cloud Computing Technology and Science (IEEE CloudCom 2012)
3. Workshop Co-Chair: IoT 2015: Special Track on Internet-of-Things, in conjunction with IEEE 4th International Conference on Mobile Services.

**Program Committee Membership**

1. IEEE International Conference on Big Data (IEEE BigData 2013–2016)
2. IEEE International Conference on Cloud Computing (CLOUD 2009–2016)
3. International Conference on Service Oriented Computing (ICSOC 2008, 2013-2016)
4. International Conference on Computer Communications and Networks (ICCCN, 2014-2016)
5. IEEE Conference on Service-Oriented Computing and Applications (SOCA 2009–2016)
6. IEEE International Conference on Information Reuse and Integration (IRI 2009–2016)
7. ACS/IEEE International Conference on Computer Systems and Applications (AICCSA 2010–2016)
8. International Conference on Parallel Processing (ICPP 2015)
9. IEEE International Conference on Enabling Technologies: Infrastructure for Collaborative Enterprises (WETICE 2015)
10. IEEE International Conference on Collaboration and Internet Computing (CIC 2015)
11. International Conference on Body Area Networks (BodyNets 2015)
12. International Workshop on Social Networks Analysis, Management and Security (SNAMS 2015)
13. International Workshop on Machine learning, Optimization and big Data (MOD 2015)
14. International Symposium on Foundations and Applications of Big Data Analytics (FAB 2015)
15. International Workshop on Data-driven and Predictive Business Analytics (DPBA 2015)
16. ASONAM PhD Forum and Posters Track (ASONAM-PFP 2015)
17. IEEE Asia-Pacific Services Computing Conference (IEEE APSCC 2009–2013, 2015)
18. International Conference on E-business (ICE-B 2009–2015)
19. Annual International Conference on Digital Government Research (dg.o 2012–2015)
20. International Conference on Business Information Systems (BIS 2015)
21. International Conference on Collaborative Computing (CollaborateCom 2009–2014)
22. International Conference on Web Information Systems Engineering (WISE 2011–2014)
23. The Australasian Web Conference (AWC 2013)
24. Australasian Database Conference (ADC 2009–2012)
25. International Conference on Cloud and Green Computing (CGC 2011)
26. International track on Adaptive and Reconfigurable Service-oriented and component-based Applications and Architectures (AROSA 2011)
27. International Conference on Business Process and Services Computing (BPSC 2010)
28. The First International Conference on Cloud Computing, GRIDs, and Virtualization (CLOUD COMPUTING 2010).
29. The First International Workshop on Data and Process Provenance, WDPP 2009
30. International Conference on Intensive Applications and Services, INTENSIVE 2009
31. International Conference on Frontier of Computer Science and Technology, FCST 2009
32. World Congress on Privacy, Security, Trust and the Management of e-Business, 2009

**Reviewer for Journals**

1. IEEE Transactions on Services Computing, TSC.
2. ACM Transactions on the Web, TWEB.
3. IEEE Transactions on Evolutionary Computation, TEC.
4. Data & Knowledge Engineering Journal, DKE
5. Knowledge and Information Systems, KAIS
6. The International Journal on Very Large Data Bases, VLDB Journal.
7. International Journal of Cooperative Information Systems, IJCIS.
8. International Journal on Distributed and Parallel Databases, DAPD.
9. International Journal of Web Services Research, JWSR.
10. ACM Transactions on Information Technology, TOIT.
11. ACM Transactions on Information Science, TOIS.
12. IEEE Transactions on Knowledge and Data Engineering, TKDE.
13. IEEE Transactions on Cybernetics, TCYB
14. Journal of Systems and Software, JSS