Jingjing Li

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McIntire School of Commerce
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EDUCATION

2013	**Ph.D. in Information Systems** University of Colorado at Boulder, Boulder, CO
2008	**B.S. in Management Information Systems** Beijing Jiaotong University (BJTU), Beijing, China

WORK EXPERIENCE

Since 2014	**Assistant Professor, Information Technology** McIntire School of Commerce University of Virginia, Charlottesville, VA
2013–2014	**Scientist** Microsoft, Redmond, WA (Large-scale machine learning solutions for Xbox One Media Search, Windows 8 Search Charm, Windows Phone Cortana, and Bing)
2010–2011	**Scientist** J.D. Power and Associates, The McGraw-Hill Companies, Boulder, CO (Multi-lingual sentiment analytics for online vehicle reviews)
2008–2013	**Senior Research Assistant & Project Lead** Leeds School of Business, University of Colorado at Boulder, Boulder, CO (Federally-supported human behavior project)
2007–2008	**Project Lead & Database Administrator** School of Economics and Business, Beijing Jiaotong University, Beijing (High-speed railway knowledge management platform for the Ministry of Railways in China)

RESEARCH INTERESTS

Focus: Design and develop silo-busting artificial intelligence and big data analytics solutions to address complex business problems and societal issues.

Applications: Search engine, recommender system, healthcare, behavioral ontology learning, consumer behavior, platform strategy, and public policymaking.

AWARDS & GRANTS

- **ISS Design Science Award**, INFORMS, 2019

- **National Science Foundation** (Co-PI), "Social Media Based Analysis of Adverse Drug Events: User Modeling, Signal Reliability, and Signal Validation," ***$500,000***, UVA Share: ***$230,000***, 2018–2021

- **Outstanding Service as Industry and Prototype Chair,** Workshop on Information Technologies and Systems (WITS), 2018

- **Best Paper Nominee,** INFORMS Workshop on Data Science, 2018

- **Microsoft Azure Award** (Co-PI), "Psychometric NLP for Patient Care and Coordination," Microsoft Research, ***$25,000***, 2017–2019

- **Best Prototype Award,** Workshop on Information Technologies and Systems (WITS), 2016

- **Best Paper Award**, Workshop on Information Technologies and Systems (WITS), 2015

- **AWS Research Grant** (PI), "Ontology Learning from Behavioral Research," Amazon, ***$5,000***, 2015

- **Ship-it Award**, Microsoft, 2014

- **Teaching Award**, Leeds School of Business, University of Colorado, 2012   **Awarded to one instructor per semester**

- **Teaching Award Finalists**, Leeds School of Business, University of Colorado, 2011
  Awarded to three instructors per semester

- **University Fellowship Award**, University of Colorado, 2009–2012

- **The Colorado Linguistic Institute 2011 Fellowship**, Linguistic Institute, 2011

- **Hart Fellowship Award**, Leeds School of Business, University of Colorado, 2009–2011

- **National Scholarship**, Chinese Government, 2007
  Awarded to 0.2% of college students in China

- **Siyuan Scholarship**, Beijing Jiaotong University, 2006   **Awarded to 8 out of 14,000 students at the university**

- **First Class Scholarship for Academic Excellence**, Beijing Jiaotong University, 2004–2008
  Awarded to top two students in the MIS Department each year

- **Excellent Student Award**, Beijing Jiaotong University, 2004–2008

- **Honorable Mention**, The American Interdisciplinary Contest in Modeling (ICM), 2007

- **Second Place**, China Undergraduate Mathematical Contest in Modeling, 2006

- **Second Place**, China Undergraduate Logistics Solution Designing Contest, 2006

JOURNAL PUBLICATIONS

[1] Li, J., Larsen, K.R., & Abbasi, A. (in press). TheoryOn: A design framework and system for unlocking behavioral knowledge through ontology learning. **MIS Quarterly** (UTD24, FT50, 5-year impact factor 9.9).

- INFORMS ISS Design Science Award 2019
- WITS Best Prototype Award 2016
- AWS Research Grant 2015 ($5,000)

[2] Li, J., Abbasi, A., Cheema, A., & Abraham, L. (2020). Path to purpose? How online customer journeys differ for hedonic versus utilitarian purchases. **Journal of Marketing** (UTD24, FT50, 5-year impact factor 9.9)*, 84*(4), 124–146.

[3] Zhang, Y**.,** Li, J., & Tong, T. (2020). Platform governance matters: How platform gatekeeping affects knowledge sharing among complementors. **Strategic Management Journal** (UTD24, FT50, 5-year impact factor 7.8).

[4] Abbasi, A., Li, J., Adjeroh, D., Abate, M., & Zheng, W. (2019). Don't mention it? Analyzing user-generated content signals for early adverse event warnings. **Information Systems Research** (UTD24, FT50, 5-year impact factor 5.6)*, 30*(3), 711–1105**.**

- WITS Best Paper Award 2015
- NSF Award 2018 ($500,000; UVA share $230,000)

[5] Kitchens, B., Dobolyi, D., Li, J., & Abbasi, A. (2018). Advanced customer analytics: Strategic value through integration of relationship-oriented big data. **Journal of Management Information Systems** (FT50, 5-year impact factor 4.3)*, 35*(2), 540–574.

[6] Ahmad, F., Abbasi, A**.,** Li, J., Dobolyi, D., Netemeyer, R., Clifford, G., & Chen, H. (2020). A deep learning architecture for psychometric natural language processing. **ACM Transactions on Information Systems** (5-year impact factor 3.2).

- INFORMS Data Science Workshop Best Paper Nominee 2018
- Microsoft Azure Award 2017 ($25,000)

[7] Abbasi, A., Li, J., Clifford, G., & Taylor, H. (2018). Make 'fairness by design' part of machine learning. **Harvard Business Review** (2020 impact factor 13.2).

CONFERENCE PROCEEDINGS & PRESENTATIONS

[1] Ahmad, F., Abbasi, A., Li, J., Dobolyi, D., Netemeyer, R., Clifford, G., & Chen, H. (2020). A deep learning architecture for psychometric natural language processing. *43rd International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR)*, Xi'an, China.

[2] Li, J., Abbasi, A., Ahmad, A., & Chen, H. (2018). A deep learning architecture for psychometric natural language processing. *Workshop on Information Technologies and Systems (WITS)*, San Jose, California.

[3]   Li, J., Abbasi, A., Ahmad, A., & Chen, H. (2018). A deep learning architecture for psychometric natural language processing. *INFORMS Workshop on Data Science*, Houston, TX. **Best Paper Nominee**.

[4]   Zhang, Y., Li, J., & Tong, W. (2018). Platform governance matters: How platform gatekeeping affects knowledge sharing among complementors. *National Bureau of Economic Research (NBER)*, Boston, MA.

[5]   Zhang, Y., Li, J., & Tong, W. (2018). Platform governance matters: How platform gatekeeping affects knowledge sharing among complementors. *SMJ Special Issue Conference on Platform Ecosystems*, Minneapolis, MN.

[6]   Li, J., Ge, Y., Hong, Y., Cheema, A., & Gu, B. (2017). Textual review dimensionality and helpfulness: A multi-method study. *Workshop on Information Technologies and Systems (WITS)*, Seoul, South Korea.

[7]   Li, J., Ge, Y., Hong, Y., Cheema, A., & Gu, B. (2017). Textual review dimensionality and helpfulness: A multi-method study. *Conference on Information Systems and Technology (CIST)*, Houston, Texas.

[8]   Li, J., Larsen, K.R., & Abbasi, A. (2017). Unlocking our behavioral knowledge inheritance through ontology learning: A design framework, an instantiation, and a randomized experiment. *INFORMS Workshop on Data Science*, Houston, Texas.

[9]   Li, J., Abbasi, A., Cheema, A., & Abraham, L. (2016). Path to purpose? Impact of online purchases' hedonic and utilitarian characteristics on the customer journey. *Workshop on Information Technologies and Systems (WITS)*, Dublin, Ireland.

[10]   Li, J., Larsen K., & Abbasi, A. (2016). Unlocking knowledge inheritance of behavioral research through ontology learning: An ontology-based search engine. *Workshop on Information Technologies and Systems (WITS)*, Dublin, Ireland. **Best Prototype Award.**

[11]   Li, J., Larsen K., & Abbasi, A. (2016). TheoryOn: Designing a construct-based search engine to reduce information overload for behavioral science research. *Design Science Research in Information Systems and Technologies (DESRIST)*, St John's, NL, Canada.

[12]   Abbasi, A., Li, J., Adjeroh, D., Abate, M., & Zheng, W. (2015). Don't mention it? Analyzing user-generated content signals for early adverse drug event warnings. *Workshop on Information Technologies and Systems (WITS)*, Fort Worth, TX. **Best Paper Award**.

[13]   Ye, X., Li, J., Qi, Z., & He, X. (2015). Enhancing retrieval and ranking performance for media search engine by deep learning. *Hawaii International Conference on System Sciences (HICSS)*, Kauai, HI.

[14]   Ge, Y. & Li, J. (2015). Measure and mitigate the dimensional bias in online reviews and ratings. *International Conference on Information Systems (ICIS)*, Fort Worth, TX.

[15]   Ye, X., Qi, Z., & Li, J. (2015). Learning relevance from click data via neural network based similarity models. *IEEE Big Data*, Santa Clara, CA (Acceptance rate: 17%).

[16] Ye, X., Li, J., Qi, Z., Peng, B., & Massey, D. (2014). A generative model for generating relevance labels from human judgments and click-logs. *ACM International Conference on Information and Knowledge Management (CIKM)*, Shanghai, China (Acceptance rate: 16.88%).

[17] Li, J., Ye, X., & Li, D. (2014). Improving Xbox search relevance by click likelihood labeling. *HCI International Conference*, Creta Maris, Heraklion, Crete, Greece.

[18] Li, J. (2013). Combining algorithms and user experience: A hybrid personalized movie recommender based on perceived similarity. *Americas Conference on Information Systems (AMCIS)*, Chicago, IL.

[19] Li, J. & Larsen, K.R. (2013). Tracking behavioral construct use through citations: A relation extraction approach. *International Conference on Information Systems (ICIS)*, Milan, Italy.

[20] Li, J. & Larsen, K.R. (2011). Establishing nomological networks for behavioral science: A natural language processing based approach. *International Conference on Information Systems (ICIS)*, Shanghai, China, 2011.

[21] Larsen, K.R., Lee, J., Li, J., & Bong, C.H. (2010). A transdisciplinary approach to construct search and integration. *16th Americas Conference on Information Systems (AMCIS)*, Lima, Peru: Paper 524.

[22] Li, J. (2009). Finding music by lyrics search: The design and implementation of a Chinese lyrics search engine. *Annual Meeting of Decision Science Institute (DSI)*, New Orleans, USA.

[23] Zhou, J., Pu, Y., & Li, J. (2008). Mining lexical hyponym relations from large-scale concept set. *International Conference on Machine Learning and Cybernetics (ICMLC)*, Kunming, China: IEEE Computer Society Press, pp. 281–286.

[24] Li, J. (2007). Sharing knowledge and creating knowledge in organizations: The modeling, implementations, discussion and recommendations of weblog-based knowledge management. *International Conference on Service Systems and Service Management*, Chengdu, China, p. 686-691.

[25] Gou, J., Ma, T., & Li, J. (2007). A research on supply chain integration strategy based on virtual value net. *Proceedings of The IFIP International Conference on Research and Practical Issues of Enterprise Information Systems (CONFENIS)*, Beijing, China.

INVITED TALKS

[1] "AI-enabled Healthcare Analytics," School of Information Management & Engineering, **Shanghai University of Finance and Economics**, Shanghai, China. Scheduled for August 2020.

[2] "Individualism During Crises: Big Data Analytics of Collective Actions Amid COVID-19," Carlson School of Management, **University of Minnesota**, Minneapolis, June 12th, 2020.

[3] "Artificial Intelligence and Big Data Analytics," School of Economics and Management, **Beijing Jiaotong University**, Beijing, China, May 9th, 2020.

[4] "A Deep Learning Architecture for Psychometric Natural Language Processing," Carlson School of Management, **University of Minnesota**, Minneapolis, October 4th, 2019.

[5] "A Deep Learning Architecture for Psychometric Natural Language Processing," **INFORMS Health Applications Cluster**, Phoenix, November 5th, 2018.

[6] "A Deep Learning Architecture for Psychometric Natural Language Processing," 2018 Annual ISOM Research Workshop, **University of Florida**, March 23rd, 2018.

[7] "Bridging the Gap between Machine Learning and Information Systems Research: Applications of ML on Behavioral and Econometric Studies," **George Washington University**, September 2017.

[8]   "Impact of Online Purchases' Hedonic and Utilitarian Characteristics on the Customer Journey," Annual Business Analytics Colloquium, McIntire School of Commerce, **University of Virginia**, Charlottesville, VA, September 1st, 2017.

[9]   "Unlocking Knowledge Inheritance of Behavioral Research through Ontology Learning: An Ontology-Based Search Engine," **NSF Workshop on Behavioral Ontology**, Boulder, CO, August 9th, 2017.

[10]   "Gatekeeping Policy and Knowledge Sharing among Platform Complementors: Evidence from App Developers," **POMS Annual Meeting**, Seattle, WA, May 5th, 2017.

[11]   "Textual Review Dimensionality and Helpfulness: A Multi-Method Study," **George Mason University**, Fairfax, VA, April 21st, 2017.

[12] "Artificial Intelligence and Big Data," **Missouri University of Science and Technology**, October 20th, 2016.

[13]   "Artificial Intelligence in the Enterprise," (with Grazioli, S.), *Knowledge Continuum*, **University of Virginia**, Charlottesville, VA, May 13th, 2016.

[14]   "The Artificial Intelligence Renaissance: Implications of Deep Learning," *UVA Alumni Professor Series Event,* **Deloitte,** Arlington, VA, March 25th, 2016.

[15]   "An Efficient Method of Nomological Network Discovery for Behavioral Research," *Quantitative Psychology Seminar*, **University of Virginia**, Charlottesville, VA, October 7th, 2015.

[16]   "Introduction to Business Analytics," (with Netemeyer, R.) *Finance Forward Conference,* **University of Virginia**, Charlottesville, VA, June 10th, 2015.

[17]   "A Similarity-Based Personalized Movie Recommender," **Microsoft**, Bellevue, WA, August 9th, 2012.

[18]   "Sentiment Analysis on Online Auto Reviews," **JD Power and Associate**, The McGraw-Hill Companies, Boulder, CO, October 6th, 2010.

TEACHING EXPERIENCE

Note: (*) new course development.

McIntire School of Commerce, University of Virginia (2014–Present)

- Big Data* (*Undergraduate*, *5-year Avg. Rating 4.7/5***)**
- Big Data* (*Master of Commerce, 5-year Avg. Rating 4.6/5*)
- Big Data* (*Executive Master Programs, 5-year Avg. Rating 4.5/5*)
- Business Analytics (*Undergraduate*, *5-year Avg. Rating 4.6/5*)
- Business Analytics with Python* (*Undergraduate, 1-year Avg. Rating 4.9/5*)

Leeds School of Business, University of Colorado at Boulder (2011–2012)

- Business Intelligence (*Undergraduate*, **Teaching Award 2012**, **Teaching Award Finalist 2011**)

MEDIA COVERAGE

- UVA Today, "Big Data Analytics Shows How America's Individualism Complicates Coronavirus Response, " July 2020.

- Datanami, "Researchers Explore Link Between American Individualism and Poor COVID-19 Response," July 2020.

- UVA Today, "University's Chinese Community Comes Together to Donate Masks to UVA Health," March 2020.

- American Marketing Association, "Understanding the Customer Path to Purchase with Retail Goods," March 2020.

- Phys Org, "How Customers Search for Hedonic versus Utilitarian Purchases," March 2020.

- Deming Center News, "How Platforms Can Orchestrate Innovation," February 2019.

- Commerce News, "McIntire Professors Urge "Fairness by Design" Approach to Machine Learning in Harvard Business Review," August 2018.

- Commerce News, "Big Data, Big Ideas—McIntire's new Center for Business Analytics brings world-class academic rigor to the brave new world of analytics," September 2014.

PROFESSIONAL SERVICES—EXTERNAL

Program Organizing Committee:

- **Industry and Prototype Chair**, Workshop on Information Technologies and Systems (WITS) (2018)
  - **Outstanding Service as Industry and Prototype Chair**
  Organized two industry research sessions featuring analytics executives from Facebook, Snapchat, Microsoft, IBM Research, eBay and Dropbox. Managed and hosted the academic prototype poster session.

Track Co-Chair:

- Pacific Asia Conference on Information Systems (PACIS) (2021)

Associate Editor:

- International Conference on Information Systems (ICIS) (2018, 2020)
- Pacific Asia Conference on Information Systems (PACIS) (2020)

Conference Program Committee:

- Workshop on Information Technologies and Systems (WITS) (2016–2019)
- INFORMS Workshop on Data Science (2017–2020)
- Conference on Information Systems and Technology (CIST) (2020)

Session Chair:

- INFORMS Annual meeting Information Systems Society (ISS) cluster (2018)
- INFORMS Annual meeting Artificial Intelligence (AI) cluster (2018)
- International Conference on Information Systems (ICIS) (2018)
- Workshop on Information Technologies and Systems (WITS) (2016, 2018)
- INFORMS Workshop on Data Science (2018)

Journal Reviewer (*Avg.10 reviews/year*):

- MIS Quarterly (MISQ), Information Systems Research (ISR), Journal of Management Information Systems (JMIS), Journal of the Association for Information Systems (JAIS), Journal of Business Analytics (JBA), ACM Transactions on Management Information Systems (TMIS), Information & Management, International Journal of Electronic Commerce, IEEE Intelligent Systems, Journal of Natural Language Engineering

Conference Reviewer (*Avg. 10 reviews/year*):

- International Conference on Information Systems (ICIS), Workshop on Information Technologies and Systems (WITS), Conference on Information Systems and Technology (CIST), Americas Conference on Information Systems (AMCIS), Hawaii International Conference on System Sciences (HICSS), Decision Sciences Institute (DSI), INFORMS Annual Meeting, Winter Conference on Business Analytics (WCBA)

PROFESSIONAL SERVICES—INTERNAL

Doctoral Dissertation Committee

- Dingjing Shi, Quantitative Psychology, University of Virginia (Graduated in 2020; Tenure-track Assistant Professor at University of Oklahoma)

Faculty Member at the Center for Business Analytics, McIntire School of Commerce, University of Virginia

- **Session moderator** for the Analytics Career Panel at the Annual Business Analytics Colloquium, McIntire School of Commerce (2014–2019)

- **Engaging with corporate partners** and school colleagues on analytics-related teaching, research, and community outreach.

Other Activities

- **Co-Organizer**, IT Area Research Symposium (2020)

- **Member**, McIntire Ally Program (2017–present)

- **Faculty Marshal**, UVA Commencements (2016–2018)

TECHNICAL SKILLS & OTHER INFORMATION

- **Programming & Scripting Language**: Python, Java, Visual Basic, C#, Bash, DOS

- **Statistical Software**: R, OpenBUGS, WinBUGS, JAGS, STATA, SPSS, SAS, MATLAB

- **Data Management**: Databricks, Spark, Hadoop (Apache Hadoop, Hortonworks, HD Insights, IBM Infosphere, Microsoft Cosmos), NoSQL Databases (MongoDB, Cassandra, neo4j, Google BigQuery), Relational Database (MS SQL Server, Oracle, MySQL, MS Access)

- **Internet Technologies**: HTML, XML, JSON, .NET, JavaScript, jQuery

- **Cloud Computing**: Amazon AWS, Microsoft Azure, IBM Bluemix

- **Professional Membership**: Association of Information Systems (AIS), Institute for Operations Research and the Management Sciences (INFORMS)

- **Piano:** Level 10 Certificate (Highest level for amateur players in China)

- **Language**: English (Fluent) & Mandarin (Native)