

JIAHENG XIE

Eller College of Management
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EDUCATION

Ph.D.	University of Arizona, AZ <i>Major: Management Information Systems</i> <i>Minor: Computational Linguistics</i>	2015-2019 (expected)
B.A. with Honors	Renmin University, Beijing, China <i>Major: Management Science and Engineering</i>	2011-2015

RESEARCH INTERESTS

Applications: Health Analytics, Business Analytics, Dark Net Market, Social Media Analytics
Methods: Deep Learning, Text Mining, Data Science, Machine Learning

DISSERTATION

Title: Developing Proactive Surveillance Intelligence for Medication Safety: A Deep Learning Approach

Committee: Daniel Zeng (Chair), Hsinchun Chen (Member), Sue Brown (Member)

PUBLISHED JOURNAL ARTICLES

1. **Xie, J.**, Liu, X., and Zeng, D. D. (2017). Mining E-cigarette Adverse Events in Social Media Using Bi-LSTM Recurrent Neural Network with Word Embedding Representation. *Journal of the American Medical Informatics Association (JAMIA)*. 25(1), 72-80.
2. **Xie, J.**, Zeng, D., and Marcum, Z. A. (2017). Using Deep Learning to Improve Medication Safety: the Untapped Potential of Social Media. *Therapeutic Advances in Drug Safety*. 8(12), 375-377.

PAPERS UNDER REVIEW

1. **Xie, J.**, Liu, X., Zeng, D. D., and Fang, X. Understanding Medication Nonadherence from Social Media: A Sentiment-Enriched Deep Learning Approach. *Under 2nd round review at MIS Quarterly*.
2. **Xie, J.**, Zhang, B., Ma, J., Zeng, D. D., and Lo-Ciganic, J. Readmission Prediction for Patients with Heterogeneous Hazard: A Trajectory-Based Deep Learning Approach. *Revising for 2nd round review at Information Systems Research*.
– Best Paper Runner-Up, International Conference for Smart Health (ICSH), 2018

3. **Xie, J.**, Zhang, B., Brown, S. A., and Zeng, D. D. Write Like a Pro or an Amateur? The Effect of Medical Language Formality in Senior Care: A Multi-Method Approach. *Under review at Information Systems Research*.
4. [Pre-Ph.D.] **Xie, J.**, Zhu, W., Wang, K., and Pang, J. The Effect of Web Page Background Color on the Uniqueness of Customized Products. *Under review at Information & Management*.

WORKING PAPERS

1. Ebrahimi, M., **Xie, J.**, Chen, W., and Chen, H. The Impact of FBI Shutdown on Product Sales in Dark Net Market: A Natural Experiment. *In preparation for submission to MIS Quarterly*.
2. Zhang, Z., **Xie, J.**, Liu, X., and Zeng, D. D. Understanding Barriers to Opioid Addiction Treatment from Social Media: A Semantic Network-Based Deep Learning Approach. *In preparation for submission to Information Systems Research*.
3. **Xie, J.**, Zhan, Y., Lo-Ciganic, J. Predicting Prescription Opioid Misuse Using Deep Multi-Task Learning. *In preparation for submission to MIS Quarterly*.
4. **Xie, J.**, Zeng, D. D., and Lo-Ciganic, J. Predicting Opioid Overdose Using Recurrent Neural Networks. *In preparation for submission to Journal of the American Medical Informatics Association (JAMIA)*.

CONFERENCE PROCEEDINGS AND WORKSHOPS (* PRESENTING AUTHOR)

1. ***Xie, J.** and Zhang, B. (2018). Readmission Risk Prediction for Patients with Heterogeneous Hazard: A Trajectory-Aware Deep Learning Approach. *International Conference on Information Systems (ICIS 2018)*. San Francisco, USA.
2. ***Xie, J.**, Liu, X., Zeng, D. D., and Fang, X. (2017). Understanding Reasons for Medication Nonadherence: An Exploration in Social Media Using Sentiment-Enriched Deep Learning Approach. *International Conference on Information Systems (ICIS 2017)*. Seoul, South Korea.
3. ***Xie, J.**, Liu, X., Zeng, D. D., and Fang, X. (2018). Discovering Medication Nonadherence Reasons with Sentiment-Enriched Deep Learning Approach. *INFORMS Workshop on Data Science 2018*. Phoenix, USA.
4. ***Xie, J.**, Zhang, B., and Zeng, D. D. (2018). Predicting Hospital Readmission Risk Using Trajectory-Based Deep Learning Approach. *INFORMS Workshop on Data Science 2018*. Phoenix, USA.
5. ***Xie, J.**, Zhang, B., and Zeng, D. D. (2018). Write Like a Pro or Amateur? The Effect of Online Caregiver Forum Writing Professionalism. *Conference on Information Systems and Technology (CIST 2018)*. Phoenix, USA.
6. ***Xie, J.** (2018). Using Long Short-Term Memory to Predict Hospital Readmission. *INFORMS Annual Meeting 2018*. Phoenix, USA.

7. **Xie, J.**, Zhang, B., and Zeng, D. D. (2018). Readmission Prediction Using Trajectory-Based Deep Learning Approach. *International Conference for Smart Health (ICSH 2018)*. Wuhan, China.
8. ***Xie, J.**, Zhang, B., and Zeng, D.D. (2018). Predicting Hospital Readmission Risk Using Trajectory-Based Deep Learning Approach. *Conference on Health IT and Analytics (CHITA 2018)*. Washington, D.C., USA.
9. ***Xie, J.**, Liu, X., Zeng, D. D., and Fang, X. (2018). Discovering Medication Nonadherence Reasons with Sentiment-Enriched Deep Learning Approach. *Conference on Health IT and Analytics (CHITA 2018)*. Washington, D.C., USA.
10. **Xie, J.**, Zhang, B., and Zeng, D. D. (2018). Predicting Hospital Readmission with Deep Learning. *China Summer Workshop on Information Management (CSWIM 2018)*. Qingdao, China.
11. ***Xie, J.**, Liu, X., Zeng, D. D., and Fang, X. (2017). Understanding Reasons for Medication Nonadherence: An Exploration in Social Media Using Sentiment-Enriched Deep Learning Approach. *INFORMS Annual Meeting 2017*. Houston, USA.
12. ***Xie, J.**, Liu, X., and Zeng, D. D. (2016). Mining E-cigarette Adverse Events in Social Media Using Bi-LSTM Recurrent Neural Network with Word Embedding Representation. *INFORMS Annual Meeting 2016*. Nashville, USA.
13. [Pre-Ph.D.] **Xie, J.**, Zhu, W., and Wang, K. (2015). Consumers' Purchase Intention of Online Product Customization Using Different Terminals with/without Default Template. *International Conference on HCI in Business 2015*. Los Angeles, USA.
14. [Pre-Ph.D.] ***Xie, J.**, Zhu, W., and Wang, K. (2014) An Improvement to E-commerce Recommendation Using Product Network Analysis. *Pacific-Asia Conference on Information Systems (PACIS 2014)*. Chengdu, China.

GRANT WRITING EXPERIENCE

- 2017 **Funding Source:** National Institutes of Health.
Grant Title: A Social Media-Based Awareness and Surveillance Platform for Opioid Research.
Funding Amount: \$3.3M.
Role: Co-Primary Grant Writer.
Status: Rejected.
- 2016 **Funding Source:** Department of Homeland Security.
Grant Title: DHS S&T Center of Excellence for Homeland Security Quantitative Analysis – Center Lead.
Funding Amount: \$40M.
Role: Co-Primary Grant Writer.
Status: Rejected.

TEACHING EXPERIENCE

Instructor	MIS 111: Computers & Internetworked Society Teacher-Course Evaluation: 4.8 / 5.0 Class Size: 33	U of A	Summer 2018
Instructor	Graduate Mini-Course: Introduction to Data Science	U of A	Fall 2018
Certificate	College Teaching Certificate (10-Credit Graduate Certificate Program)	U of A	2018
Guest Lecturer	MIS 611A: Design Science Methodologies	U of A	Fall 2017
Guest Lecturer	MIS 611A: Design Science Methodologies	U of A	Fall 2016
Teaching Assistant	MIS 507: Software Design and Integration	U of A	Fall 2016
Teaching Assistant	MIS 507: Software Design and Integration	U of A	Fall 2015

PROFESSIONAL EXPERIENCE

2015 -	Research Associate, University of Arizona	Tucson, USA
2014 - 2015	Research Assistant, Renmin University of China	Beijing, China
2014	Data Analyst, NetEase Inc. (NASDAQ: NTES)	Beijing, China
2013	Voluntary Math Teacher	Nairobi, Kenya
2012	Voluntary English Teacher	Luoyang, China

AWARDS AND HONORS

2018	Selected for CHITA Doctoral Consortium
2018	Best Paper Runner-Up (ICSH 2018)
2018	Selected for Pre-AMIS MISQ Author Development Workshop
2015	Nunamaker-Chen MIS Doctoral Scholarship
2015	Honored Graduate of Renmin University
2012	RUC Scholarship of Excellent Academic Performance
2012	RUC Scholarship of Extracurricular Activities
2012	Merit Student of Renmin University of China

ACADEMIC SERVICE

Session Chair: *INFORMS Annual Meeting (INFORMS 2017, 2018)*

Journal Reviewer: *MIS Quarterly, ACM Transactions on Management Information Systems (TMIS), Information & Management, IEEE Intelligent Systems*

Conference Reviewer: *INFORMS Workshop on Data Science (DS 2018), Conference on Information Systems and Technology (CIST 2018), China Summer Workshop on Information Management (CSWIM 2018), European Conference on Information Systems (ECIS 2018), International Conference on Information Systems (ICIS 2016), International Joint Conference on Artificial Intelligence (IJCHI 2016)*

SKILLS

Language: English, Mandarin
Deep Learning: TensorFlow, Keras
Programming: Python, Java, R

Analytics: Stata, SAS, PLS, SPSS
Database: MySQL, Oracle
Web Development: HTML5

AFFILIATIONS

Association for Information Systems (AIS)
The Institute for Operations Research and the Management Sciences (INFORMS)
Information Systems Society (ISS)

REFERENCES

1. **Daniel Zeng**, Ph.D. (Dissertation Committee Chair)

Fellow of AAAS & IEEE
Professor of MIS, Eller College of Management
The University of Arizona
Editor in Chief, ACM Transactions on MIS
President, IEEE ITS Society (2016-2017)
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2. **Sue Brown**, Ph.D. (Dissertation Committee Member)

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3. **Xiao Fang**, Ph.D. (Co-author)

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