

# Vita: Faiz Currim

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## EDUCATIONAL BACKGROUND

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- 2004      **Ph.D.**, Management Information Systems  
University of Arizona, Tucson AZ
- 1997      **PGDM** (*Major:* Information Systems and Finance)  
Indian Institute of Management (IIM), *Calcutta, India*

## ACADEMIC APPOINTMENTS

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- 2021-now    **Professor of Practice**, Department of Management Information Systems, University of Arizona
- 2011-2021   **Senior Lecturer**, Department of Management Information Systems, University of Arizona
- 2015-now    **Assistant Director**, INSITE: Center for Business Intelligence and Analytics.
- 2004-2010   **Assistant Professor**, Management Sciences Department, University of Iowa

## COURSES TAUGHT

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- 1/11 – now    Department of Management Information Systems, University of Arizona*
- MIS 111L Computers & Internetworked Society, Excel Lab: Fall 2012– Fall 2015
  - MIS 304 Using & Managing Information Systems: in-person each Spring since 2016; online in Fall 2016 and each Spring 2018-onwards
  - MIS 307 Business Data Communications: Spring 2011 – Spring 2012, Spring 2014, Spring 2015
  - MIS 331 Database Management Systems: Spring 2011 – Spring 2013
  - MIS 531 Enterprise Data Management: Fall semesters (in-person each Fall since 2012; online each semester since Spring 2013)
- 8/04 – 12/10   Department of Management Sciences, University of Iowa*
- 06K:182 Applications Database Management Systems: Fall 2004 – Fall 2010
  - 06K:186 Advanced Database Management: Fall 2005, 2006, Spring 2008 – 2010
  - 6K:230 Database Systems: Spring 2008 – 2010
  - 06K:272 Advanced Database Analysis: Spring 2005, Spring 2008
- 7/00 – 8/00    University of Phoenix, Tucson, AZ*
- DBM 380: Database Concepts (five week course, July 2000 – August 2000)

## PUBLICATIONS AND WORKING PAPERS

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### Refereed Journal Articles

- “Deep Learning of Spatiotemporal Patterns for Urban Mobility Prediction using Big Data” (Y. Wang, F. Currim, S. Ram). *Information Systems Research* [impact factor 5.63]. [Accepted for publications]
- “Data Completeness and Complex Semantics in Conceptual Modeling: the need for a Disaggregation Construct” (Y. Li, F. Currim, S. Ram). *Journal of Data and Information Quality* [impact factor 4.1]. [Accepted for publication]
- “Evaluating Distributed Computing Infrastructures: An Empirical Study Comparing Hadoop Deployments on Cloud and Local Systems”. (D. Bhattacharya, F. Currim, S. Ram). *IEEE Transactions on Cloud Computing* [impact factor 5.97]. Volume 9, Issue 3, July 2021.
- “Wellbuilt for Wellbeing: Controlling Relative Humidity in the Workplace Matters for Our Health” (J. Razjouyan, H. Lee, B. Gilligan, C. Lindberg, H. Nguyen, K. Canada, A. Burton, A. Sharafkhaneh, K. Srinivasan, F. Currim, S. Ram, M. Mehl, N. Goebel, M. Lunden, S. Bhangar, J. Heerwagen, K. Kampschroer, E. Sternberg, B. Najafi. *Indoor Air* [impact factor 4.71]. *Indoor Air*. Volume 30, Issue 1, Jan 2020.
- “Predicting High Cost Patients at Point of Admission using Network Science”, (K. Srinivasan, F. Currim, S. Ram). *IEEE Journal of Biomedical and Health Informatics* [impact factor 3.85], Volume 22, Issue 6, November 2018.
- “Effects of office workstation type on physical activity and stress”, (C. Lindberg, K. Srinivasan, B. Gilligan, J. Razjouyan, H. Lee, B. Najafi, K. Canada, M. Mehl, F. Currim, S. Ram, M. Lunden, J. Heerwagen, K. Kampschroer, E. Sternberg). *Occupational and Environmental Medicine* [impact factor 3.97], Vol 75, Issue 10, October 2018.
- “Using a knowledge learning framework to predict errors” (S. Currim, S. Ram, A. Durcikova, F. Currim). *Information Systems*, Vol 40, March 2014.
- “A Maintenance Centric Approach to the View Selection Problem” (R. Hylock, F. Currim). *Information Systems*, Vol 38, Issue 7, October 2013.
- “Modeling spatial and temporal set-based constraints during conceptual database design” (F. Currim, S. Ram). *Information Systems Research*, Vol 23, Issue 1, March 2012.
- “Adding Temporal Constraints to XML Schema” (F. Currim, S. Currim, C. Dyreson, R. Snodgrass, S. Thomas, R. Zhang). *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, Vol 24, Issue 8, August 2012.
- “Safe & Efficient Privacy-policy Enforcement on Hadoop” (I. Jo, E. Jung, F. Currim, H. Y. Yeom). *Information Journal*, Vol 15, Issue 4, April 2012.
- “Competitive Intelligence Task Analysis and Retrieval: An End-User Approach” (L. Zhang, S. Currim, F. Currim). *Review of Business Information Systems*, Vol 15, Issue 2, 2011.
- “A data modeling process for decomposing healthcare patient data sets” (D-F Lu, W. N. Street, F. Currim, R. Hylock, C. Delaney). *Online Journal of Nursing Informatics*, Vol 13, Issue 1, February 2009.
- “Conceptually modeling Windows and Bounds for space and time in database constraints” (F. Currim, S. Ram). *Communications of the ACM*, November 2008.

- “Validating quicksand: Schema versioning in  $\tau$ XSchema” (R. T. Snodgrass, C. Dyreson, F. Currim, S. Currim, S. Joshi). *Data and Knowledge Engineering, Vol 65, Issue 2, May 2008*.
- “Weaving Temporal and Reliability aspects into a schema tapestry” (C. Dyreson, R. T. Snodgrass, F. Currim, S. Currim, S. Joshi). *Data and Knowledge Engineering, Vol 63, Issue 3, December 2007*.
- “The Latin American ICBG: The first five years” (B. Timmermann, G. Wachter, S. Valcic, B. Hutchinson, C. Casler, J. Henzel, S. Ram, F. Currim, R. Manak, S. Franzblau, W. Maiese, D. Galinis, E. Suarez, R. Fortunato, E. Saavedra, R. Bye, R. Mata, G. Montenegro). *Journal of Pharmaceutical Biology, Vol. 37 (Suppl.), 1999, pp. 35-54*.

### **Book Chapter (Refereed)**

- “Survey of cardinality constraints in snapshot and temporal semantic data models”, (F. Currim, S. Ram). In S. Wrycza and A. Bajaj (Eds.), *Systems Analysis and Design for Advanced Modeling Methods: Best Practices*. IGI Global, 2009.

### **Refereed Conference & Workshop Proceedings**

- “What Makes an Online Suggestion A Good One for Online Health Communities” (Z. Yang, S. Ram, F. Currim), *25<sup>th</sup> Americas Conference on Information Systems (AMCIS 2020)*, 2020.
- “Suggestion Mining for Online Health Forums” (Z. Yang, S. Ram, F. Currim), *29th Workshop on Information Technology and Systems (WITS)*, 2019.
- “Modeling Bike Sharing Systems and Predicting Station Demand Using Heterogeneous Data Sources” (F. Dong, F. Currim, S. Ram), *29th Workshop on Information Technology and Systems (WITS)*, 2019.
- “Drug-Drug Interaction Mining and Interaction Terms Extraction using Deep Learning: A Word-level Attention Bi-Directional LSTM” (Z. Yang, S. Ram, F. Currim), *28th Workshop on Information Technology and Systems (WITS)*, 2018.
- “Future Impact Prediction of Technology based on Patent Ranking in Heterogeneous Network” (Z. Yang, S. Ram, F. Currim), *Conference on Information Systems and Technology (CIST)*, 2018.
- “Using Digital Health Wearable Devices to Understand the Relationship Between Sound levels and Wellbeing: A Segmented Mixed-effects Regression Approach” (K. Srinivasan, F. Currim, S. Ram), *27th Workshop on Information Technology and Systems (WITS)*, 2017.
- “A Regularization Approach for Identifying Cumulative Lagged Effects in Smart Health Applications”, (K. Srinivasan, F. Currim, S. Ram, C. Lindberg, E. Sternberg, B. Najafi, J. Razjouyan, H. Lee, M. Mehl, D. Herzl, R. Herzl, M. Lunden, N. Goebel, S. Andrews, B. Gilligan, J. Heerwagen, K. Kamschroer, K. Canada), *7th International Conference on Digital Health*, 2017.
- “Deep Learning for Bus Passenger Demand Prediction Using Big Data” (Y. Wang, F. Currim, S. Ram), *26th Workshop on Information Technology and Systems (WITS)*, 2016.
- “SMARTBIKE: Policy making and decision support for Bike Share systems” (S. Ram, F. Dong, F. Currim, Y. Wang, E. Dantas, L. A. Sabóia), *IEEE 2<sup>nd</sup> International Smart Cities Conference*, 2016.
- “A Big Data Approach for Smart Transportation Management on Bus Network” (Y. Wang, S. Ram, F. Currim, E. Dantas, L. A. Sabóia), *IEEE 2<sup>nd</sup> International Smart Cities Conference*, 2016. [award: Best Paper]
- “Feature importance and predictive modeling for multi-source healthcare data with missing values” (K. Srinivasan, F. Currim, S. Ram, C. Lindberg, E. Sternberg, P. Skeath, B. Najafi, J. Razjouyan, H.

Lee, C. Foe-Parker, N. Goebel, R. Herzl, M. Mehl, B. Gilligan, J. Heerwagen, K. Kampschroer, K. Canada), *6<sup>th</sup> International Conference on Digital Health (in conjunction with WWW 2016)*, 2016. [award: Best Student-led Paper]

- “SMARTBUS: A Web Application for Smart Urban Mobility and Transportation” (S. Ram, Y. Wang, F. Currim, F. Dong, E. Dantas, L. A. Sabóia), *AW4city 2<sup>nd</sup> International Smart City Workshop, (in conjunction with WWW 2016)*, 2016.
- “Using Big Data for Predicting Freshmen Retention” (S. Ram, Y. Wang, F. Currim, S. Currim). *International Conference on Information Systems*, 2015.
- “Class Imbalance Learning and Novel Feature Extraction Methods for Predicting Freshman Retention” (Y. Wang, F. Currim, S. Currim, S. Ram, *25<sup>th</sup> Workshop on Information Technology and Systems*, 2015.
- “Safe & Efficient Privacy-policy Enforcement on Hadoop” (I. Jo, E. Jung, F. Currim, H. Y. Yeom), *International Conference on Computer Convergence Technology*, 2011.
- “When Entities are Types: Effectively Modeling Type-Instantiation Relationships” (F. Currim, S. Ram). *Third International Workshop on Active Conceptual Modeling of Learning*, 2010.
- “Exploratory Competitive Intelligence through Task Complexity Analysis” (S. Currim, L. Zhang, F. Currim). *Fifth annual conference of Midwest Association for Information Systems (MWAIS)*, 2010.
- “Privacy policy enforcement for health information data access” (F. Currim, E. Jung, X. Xiao and I. Jo). *WiMD 2009: ACM International Workshop on Medical-grade Wireless Networks*. May 2009.
- “Quips, MD: Query Information Privacy and Security, for Medical Data” (X. Xiao, E. Jung, F. Currim). *Proceedings of the 18<sup>th</sup> Workshop on Information Technology and Systems*, 2008.
- “NursingCareWare: Warehousing for nursing care research and knowledge discovery” (R. Hylock, W. N. Street, D-F Lu, F. Currim), *Proceedings of the 3<sup>rd</sup> INFORMS Workshop on Data Mining and Health Informatics*, 2008.
- “RFID Tagging at the aggregate level: implications for using groupings” (F. Currim, S. Ram). *Proceedings of the Seventh Symposium on Research in Systems Analysis and Design*, 2008.
- “Database systems: Understanding the effect of organizational knowledge creation on data quality” (S. Currim, F. Currim). *Proceedings of the Seventh Symposium on Research in Systems Analysis and Design*, 2008.
- “RFID Data: A case of and for types and instances” (F. Currim, S. Ram). *Proceedings of the 17<sup>th</sup> Workshop on Information Technology and Systems*, 2007. [Acceptance rate ~ 32%; Acceptance rate for Conceptual modeling track not known but likely under 30% based on past data]
- “Understanding the concept of “Completeness” in frameworks for modeling cardinality constraints” (F. Currim, S. Ram). *Proceedings of the 16<sup>th</sup> Workshop on Information Technology and Systems*, 2006. [Acceptance rate 82/220 ~ 37%; acceptance rate in Conceptual modeling track: ~ 27%]
- “Schema-mediated exchange of temporal XML data” (C. Dyreson, R. T. Snodgrass, F. Currim, S. Currim). *Proceedings of the 25<sup>th</sup> International Conference on Conceptual Modeling*, 2006. [Acceptance rate 37/158 ~ 23%]
- “Making the case for new semantic constructs to model RFID data” (F. Currim, S. Ram). *Proceedings of the Fifth Symposium on Research in Systems Analysis and Design*, 2006.
- “Validating quicksand: schema versioning in  $\tau$ XSchema” (C. Dyreson, R. T. Snodgrass, F. Currim, S. Currim, S. Joshi). *Proceedings of the 3<sup>rd</sup> International Workshop on XML Schema and Data Management*, 2006. [Acceptance rate 10/15 ~ 66%]

- “A Tale of Two Schemas: creating a temporal XML schema from a snapshot schema with  $\tau$ XSchema” (F. Currim, S. Currim, R. T. Snodgrass, C. Dyreson). In *Proceedings of the 9<sup>th</sup> International Conference on Extending Database Technology*, 2004, Heraklion-Crete, Greece. pp. 348-364. [Acceptance rate 42/294 ~ 14%]

### Other Publications and Presentations

- “Understanding Semantic Completeness in Rule Frameworks for Modeling Cardinality Constraints” (F. Currim, S. Ram). *EMISA Journal (invited contribution for special issue)*, Vol 13(2), 2018.
- “A literature survey of computational support for global public policy” (F. Currim, W. Foster, R. Reinsch, H. Thoreson, S. Saheil). *Technical Report*. 2013.
- “Modeling Spatial and Temporal Cardinality Constraints”, (F. Currim, S. Ram). *Information Systems sub-track INFORMS*, November 2010.
- “The CARD System”, (F. Currim, N. Neidig, A. Kampoowale, G. Mhatre). *29<sup>th</sup> International Conference on Conceptual Modeling, (ER 2010)*, pp. 433-437.
- “ $\tau$ XSchema—Support for Data- and Schema-Versioned XML Documents”, (F. Currim, S. Currim, C. Dyreson, R. T. Snodgrass, S. W. Thomas, S. Joshi, E. Roeder). Technical Report TR-91, TimeCenter, May 2009.
- “Q-RICE: Query Rewriting and policy Integration for access Control and Enforcement” (E. Jung, F. currim, X. Xiao, N. Burnette, E. Hoffman). *DIMACS workshop on Internet Privacy: Facilitating Seamless Data Movement with Appropriate Controls*. September 2008.
- “A Data modeling process For decomposing healthcare patient data sets” (D-F Lu, W. N. Street, F. Currim, C. Delaney). *International Conference to Celebrate the Centennial of the College of Nursing, Seoul National University*, 2007.
- “CARD: Constraint Automated Representation for Database Systems” (F. Currim, N. Neidig, A. Kampoowale, G. Mhatre, M. Vanderflugt, A. Padiyara). Prototype Session Demonstration, at *17<sup>th</sup> Workshop on Information Technology and Systems*, 2007.

### Work In Progress

- (Under review) “NEPA Performance: Conceptualizing Multi-dimensional Policy Objectives” (K. Emerson, E. Baldwin, T. Scott, J. Pidot, A. Lien, F. Currim, S. Bethard, S. Ram, M. Miller, L. Lopez-Hoffman)
- (Under Review) “A Reduced Modeling Approach for Analyzing Incomplete Data with Blockwise Missing Patterns” (K. Srinivasan, F. Currim, S. Ram).
- (Under Review) “A Human-in-the-loop Segmented Mixed-effects Modeling Method For Analyzing Wearables Data” (K. Srinivasan, F. Currim, S. Ram).
- (Under review) “Sensor-Based Sleep Quality Index (SB-SQI): a New Metric to Examine the Association of Office Workstation Type on Stress and Sleep” (H. Lee, J. Razjouyan, H. Nguyen, C. Lindberg, K. Srinivasan, B. Gilligan, K. Canada, A. Sharafkhaneh, M. Mehl, F. Currim, S. Ram, M. Lunden, J. Heerwagen, K. Kampschroer, E. Sternberg, B. Najafi).
- (Working Paper: Journal) “Leveraging Intelligence from Smart Card Transactions for Freshman Retention Prediction” (Y. Wang, F. Currim, S. Ram, S. Currim).

### AWARDS AND NOMINATIONS

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- *MIS Association, University of Arizona, Faculty Award*, 2018.

- *Delta Sigma Pi, University of Arizona*, Neville Cramer Faculty Scholarship Award, Spring 2017.
- *Alpha Kappa Psi, University of Arizona*, Outstanding Faculty Award, March 2012.
- *Teaching Excellence in Management Sciences Department, University of Iowa* (released each semester for instructors with an evaluation score over 5.45/6): Spring 2010 (6K:186), Fall 2009 (6K:182), Spring 2009 (6K:186), Spring 2008 (6K:182, 186), Fall 2007 (6K:182), Spring 2007 (6K:182), Fall 2006 (6K:186), Spring 2006 (6K:182), Fall 2005 (6K:182, 6K:186), Spring 2005 (6K:182, 6K:272).
- Recipient of *Dean's Teaching Award*, Tippie college of Business, University of Iowa, Spring 2010. Nominated by graduating seniors as one of UI faculty members with "most positive effects", Spring 2010.
- 2006 Spring & Fall Teaching excellence (75<sup>th</sup> percentile +, among faculty in the Tippie College, University of Iowa).
- *Undergraduate Leadership Council, Tippie College, University of Iowa*, nominated for Student's Choice Award for Faculty Excellence, April 2007.
- *Undergraduate Leadership Council, Tippie College, University of Iowa*, nominated for Tippie Favorite Faculty Member, April 2006.
- *Delta Sigma Pi, University of Iowa* Faculty of the Month, March 2006.

## SERVICE ACTIVITIES

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### *University of Arizona*

#### Department and Collegiate Service

- MIS Department, Graduate Program Committee, University of Arizona, Fall 2019-ongoing.
- MIS Department, Undergraduate Program Committee, University of Arizona, Fall 2011-Spring 2014. Fall 2016 – Spring 2019.
- MIS Department, Assessment Coordinator, Fall 2012-present.

#### Ph.D. Committees

- Karthik Srinivasan, Department of Management Information Systems, 2019.
- Yun Wang, Department of Management Information Systems, 2017.

#### Ph.D. Student Advising / Mentoring

- Fan Dong, Prelim Committee, Department of MIS, 2017.

### *University of Iowa*

#### Department and Collegiate Service

- Collegiate Undergraduate Program Committee, Fall 2006-Fall 2009.
- Recruitment Committee, Management Sciences, 2008-2009.
- IS Admissions Committee, Informatics Graduate Program, 2008-2009.
- Coordinated development of the Department of Management Sciences Undergraduate (MIS Major) Curriculum Assessment Plan.
- Coordinated Seminar Series, Department of Management Sciences, Fall 2004-Spring 2006.

#### Ph.D. Committees

- Robert Arens, 2009.
- Kaan Ataman, 2007.
- Terrence Mason, 2006.

#### Ph.D. Student Advising / Mentoring

- Ray Hylock, Health Informatics, 2007-2010.
- Senay Yasar Saglam, Prelim Committee, Department of Management Sciences, 2010.
- Xin Xiao, Department of Computer Science, 2007-2009.
- Brian Almquist, Department of Management Sciences, Thesis Committee, 2008.
- Lian Duan, Prelim Committee, Department of Management Sciences, 2008.
- Ransom Briggs, Comprehensive Exam Committee, Department of Computer Sciences, 2007.

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#### PROFESSIONAL MEMBERSHIPS AND SERVICE ACTIVITIES

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- Member: Association for Information Systems (AIS), INFORMS, Association for Computing Machinery (ACM).
- Prototype and Technology Instructional Technology Chair, *19<sup>th</sup> Workshop on Information Technology and Systems (WITS)*, 2009.

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#### TRAINING

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- Teaching Large Online Courses (August 2021)
- Rethinking traditional feedback delivery for online assignments (May 2021)
- Getting Started with Flipped Learning (February 2021)
- CSC 483: Text Retrieval and Web Search (Fall 2020)
- Building Communities in Online Courses (August 2020)
- INFO 523: Data Mining and Discovery (Spring 2020)
- UA Open Classroom Week (Mar 2020)
- Creating Accessible Course Sites ([Aug 2019](#))
- Teaching: Using Clickers for Team-Based Learning or Gamification (UA-1609-1; Apr 2019)
- Eller Faculty Excellence in Online Teaching Certificate ([January 2019](#))
- Teaching to Maximize Learning (Sep 2014)
- Faculty Learning Community on Program Assessment, University of Arizona, Fall 2011-Fall 2012.

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#### OTHER

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- Patent US20180144352A1: Predicting Student Retention using Smartcard Transactions, (Sudha Ram, Yun Wang, Sabah Currim, Faiz Currim). 2017.
- Award: Obermann Center for Advanced Studies, Interdisciplinary Research Grant for Summer 2008 (\$6000). Proposal Title: "RSQL: Automatic Query Rewriting for Access Control in a Large-scale Database" (with Eunjun Jung, department of Computer Science).