

## **Dan Li, Ph.D.**

Department of Computer Science  
College of Science, Technology, Engineering & Mathematics  
Eastern Washington University  
(509) 359-4373 danl@ewu.edu

### **EDUCATION**

Ph.D., 2005	Computer Science, University of Nebraska – Lincoln.
M.E., 1999	Computer Science, Institute of Computing Technology, Chinese Academy of Sciences, Shenyang, China.
B.E., 1996	Computer Science, Harbin Engineering University, China.

### **PROFESSIONAL EXPERIENCE**

9/2019-present	Professor. Dept. of Computer Science & Electrical Engineering, Eastern Washington University.
9/2014-8/2019	Associate Professor. Dept. of Computer Science, Eastern Washington University.
9/2011-8/2014	Assistant Professor. Dept. of Computer Science, Eastern Washington University.
8/2005-5/2011	Assistant Professor. Dept. of Electrical Engineering & Computer Science, Northern Arizona University.
1/2005-7/2005	Research Assistant. University of Nebraska Public Policy Center, Lincoln, NE.
8/2003-12/2004	Teaching Assistant. Dept. of Computer Science & Engineering, University of Nebraska – Lincoln.
1/2001-7/2003	Research Assistant. Dept. of Computer Science & Engineering, University of Nebraska – Lincoln.
8/1999-8/2000	Software Engineer. Dept. of Computing Technology, Shenzhen Customs, Shenzhen, China.
8/1997-7/1999	Research Assistant. Institute of Computing Technology, Chinese Academy of Sciences, Shenyang, China.

### **PUBLICATIONS**

#### **Refereed Book Chapters**

- **D. Li**, J. Deogun, “*Applications of Fuzzy and Rough Set Theory in Data Mining*”, Methods and Supporting Technologies for Data Analysis (2009).

#### **Refereed Journal Papers**

- A. Djulovic, **D. Li**, “*Towards Freshman Retention Prediction: A Comparative Study*”, International Journal of Information and Education Technology Vol. 3, No. 5 (2013), pp. 494-500.

- **D. Li**, C. Krause, N. Cobb, “*Explorer Analysis of Species Distribution Modeling Results*”, International Journal of Applied Environmental Sciences, Volume 6, Number 2 (2011), pp. 143-153.
- **D. Li**, J. Deogun, W. Spaulding, B. Shuart “*Dealing with Missing Data: Algorithms Based on Fuzzy Sets and Rough Sets Theories*”, Transactions on Rough Sets, Vol IV (2005), pp. 37-57.
- **D. Li**, J. Deogun, “*Interpolation Models for Spatio-temporal Association Mining*”, Fundamenta Informaticae 59 (2-3) (2004), pp. 153-172.

### Refereed Conference Papers

- **D. Li**, “*Integrating Hands-on Components into Database Curriculum at Undergraduate and Graduate Levels*”, Proceedings of the 5<sup>th</sup> International Conference on Computer Science & Computational Intelligence, December, 2018, Las Vegas.
- **D. Li**, “*Using Twitter Stream Data for Real-time Influenza-like Illness Detection and Prediction*”, Proceedings of the 4<sup>th</sup> International Conference on Health Informatics and Medical Systems, August 2018, Las Vegas.
- **D. Li**, S. Bass, S. Hurley, “*Locating Heartbeats from Electrocardiograms and Other Correlated Signals*”, Proceedings of the 3<sup>rd</sup> IEEE International Conference on Computational Intelligence and Applications, July 2018, Hong Kong.
- Richard Sipes, **D. Li**, “*Using Convolutional Neural Networks for Automated Fine Grained Image Classification of Acute Lymphoblastic Leukemia*”, Proceedings of the 3<sup>rd</sup> IEEE International Conference on Computational Intelligence and Applications, July 2018, Hong Kong.
- **D. Li**, A. Djulovic, J. Xu, “*A Study of kNN using ICU Multivariate Time Series Data*”, Proceedings of the 2013 International Conference on Data Mining (DMIN 2013), pp. 211-217, July 2013, Las Vegas.
- **D. Li**, “*Enhancing the Teaching of Relational Database Systems Course with Cooperative Learning Approach*”, Proceedings of the International Conference on Engineering Education and Research (iCEER 2013), July 2013, Marrakesh.
- J. Xu, **D. Li**, Y. Zhang, A. Djulovic, Y. Li, “*CinC Challenge: Cluster Analysis of Multi-Granular Time-series Data for Mortality Rate Predication*”, Proceedings of the Annual Conference of Computing in Cardiology 2012 (CinC2012), September 2012, Poland.
- **D. Li**, “*A Practice-Oriented Approach to Teaching Undergraduate Data Mining Course*”, 2011 American Society for Engineering Education (ASEE) Annual Conference, June 2011, Vancouver, Canada.
- **D. Li**, J. Deogun, K. Wang, “*Gene Function Classification Using Fuzzy K-Nearest Neighbor Approach*”, Proceedings of the 2007 IEEE International Conference on Granular Computing, pp. 644-647, Nov 2007, San Jose, CA.
- **D. Li**, K. Wang, J. Deogun, “*FADS: A Fuzzy Anomaly Detection System*”, Proceedings of the 1<sup>st</sup> International Conference on Rough Sets and Knowledge Technology (RSKT 2006), pp 792-798, July 2006, Chongqing, China.
- **D. Li**, J. Deogun, “*Periodic Association Mining in a Geospatial Decision Support System*”, Proceedings of the 7<sup>th</sup> International Conference on Digital Government Research, pp 427-428, May 2006, San Diego, CA.
- **D. Li**, K. Wang, J. Deogun, “*A Fuzzy Anomaly Detection System*”, Proceedings of the 4<sup>th</sup> International Workshop on Intelligence and Security Informatics (WISI'06), pp. 167-168, April 2006, Singapore.
- **D. Li**, J. Deogun, “*Discovering Partial Periodic Sequential Association Rules with Time Lag in Multiple Sequences for Prediction*”, Proceedings of the 15th International Symposium on

Methodologies for Intelligent Systems (ISMIS'05), pp. 332-341, May 2005, Saratoga Springs, New York.

- **D. Li**, J. Deogun, W. Spaulding, B. Shuart “*Towards Missing Data Imputation: A Study of Fuzzy K-means Clustering Method*”, Proceedings of the 4<sup>th</sup> International Conference on Rough Sets and Current Trends in Computing 2004 (RSCTC'2004), pp. 573-579, Springer, June 2004, Uppsala, Sweden.
- **D. Li**, L. Jiang, J. Deogun, “*Temporal Knowledge Discovery with Infrequent episodes*”, Proceedings of the 5<sup>th</sup> National Conference on Digital Government Research, pp. 353-354, May 2004, Seattle, WA.
- **D. Li**, J. Deogun, “*Spatio-temporal Association Mining for Un-sampled Sites*”, Proceedings of the 14<sup>th</sup> International Symposium on Methodologies for Intelligent Systems (ISMIS'03), pp. 478-485, Springer, October 2003, Maebashi City, Japan.
- **D. Li**, J. Deogun, S. Harms, “*Interpolation Techniques for Geo-spatial Association Rule Mining*”, Proceedings of the 9<sup>th</sup> International Conference on Rough Sets, Fuzzy Sets, Data Mining and Granular Computing, pp. 573-580, October 2003, China.
- **D. Li**, K. Wang, J. Deogun, “*An Efficient Algorithm for Pattern Discovery in Large Text Databases*”, Proceedings of the 2003 International Conference on Information and Knowledge Engineering, pp. 96-102, June 2003, Las Vegas, NV.
- **D. Li**, S. Harms, S. Goddard, W. Waltman, J. Deogun, “*Time-series Data Mining in a Geospatial Decision Support System*”, Proceedings of the 3<sup>rd</sup> National Conference on Digital Government, pp. 387-390, May 2003, Boston, MA.
- S. Harms, **D. Li**, J. Deogun, T. Tadesse, “*Efficient Rule Discovery in a Geo-Spatial Decision Support System*”, Proceedings of the 2<sup>nd</sup> National Conference on Digital Government, pp. 235-241, May 2002, Los Angeles, CA.
- L. Lv, **D. Li**, “*An Overview of Data Mining and Data Warehouse Techniques*”, Proceedings of the 10<sup>th</sup> National Conference on Computational Mathematics, September 1998, Shenyang, China. (In Chinese).

### Technical Reports

- **D. Li**, “Data Analysis for Kaiser using RapidMiner”, technical report, Kaiser Aluminum, 2016.
- **D. Li**, “Using RapidMiner to Analyze Species Distribution Modeling Results”, CI-Team Training Workshop on Ecological Niche Modeling and Analysis, June 2009.

### PROFESSIONAL PRESENTATIONS

- “*Integrating Hands-on Components into Database Curriculum at Undergraduate and Graduate Levels*”, the 5<sup>th</sup> International Conference on Computer Science & Computational Intelligence, December, 2018, Las Vegas.
- “*Locating Heartbeats from Electrocardiograms and Other Correlated Signals*”, the 3<sup>rd</sup> IEEE International Conference on Computational Intelligence and Applications, July 2018, Hong Kong.
- “*Using Convolutional Neural Networks for Automated Fine Grained Image Classification of Acute Lymphoblastic Leukemia*”, the 3<sup>rd</sup> IEEE International Conference on Computational Intelligence and Applications, July 2018, Hong Kong.
- “*Learn Relational Databases from Scratch*”, SQL Saturday Conference, March 2018, Spokane, WA.
- “*Application of Data Mining Techniques to Predict ICU Mortality*”, research seminar at Kaiser Aluminum, October 2016, Spokane, WA.

- “*Towards Freshman Retention Prediction: A Comparative Study*”, the 2<sup>nd</sup> International Conference on Information and Knowledge Management, July 2013, Chengdu, China.
- “*A Practice-Oriented Approach to Teaching Undergraduate Data Mining Course*”, 2011 American Society for Engineering Education (ASEE) Annual Conference, June 2011, Vancouver, Canada.
- “*Data Mining in Ecology*”, CI-Team Training Workshop on Ecological Niche Modeling and Analysis, June 2009, Flagstaff, AZ.
- “*Gene Function Classification Using Fuzzy K-Nearest Neighbor Approach*”, the 2007 IEEE International Conference on Granular Computing (GrC’07), November 2007, San Jose, CA.
- “*FADS: A Fuzzy Anomaly Detection System*”, the 1<sup>st</sup> International Conference on Rough Sets and Knowledge Technology (RSKT 2006), July 2006, Chongqing, China.
- “*An Efficient Algorithm for Pattern Discovery in Large Text Databases*”, the 2003 International Conference on Information and Knowledge Engineering (IKE’03), June 2003, Las Vegas, NV.
- “*An Efficient Pattern Discovery Algorithm*”, Poster in 30th Annual Conference – An Exhibition & Conference for the Information Technology Professional, April 2003, Omaha, NE.
- “*Efficient Rule Discovery in a Geo-Spatial Decision Support System*”, the Second National Conference on Digital Government, May 2002, Los Angeles, CA.

## GRANT ACTIVITIES

- **(PI)**, “*Multi-class Imbalanced Sentiment Analysis using Machine Learning Approaches*,” EWU Faculty Grants for Research and Creative Works (FGRCW), July 2019 – June 2020, \$9950 (**funded**).
- **(PI)**, “*Real-time Disease Detection and Prediction using Twitter Stream Data*,” application for professional leave, EWU, 2017 (**awarded**).
- **(PI)**, “*Locating Heartbeats from Electrocardiograms and other Correlated Signals*”, EWU Faculty Grants for Research and Creative Works (FGRCW), July 2016 – June 2017, \$8,240 (**funded**).
- **(Co-PI)**, “*3C-STEM: Towards Increased Cognitive, Cultural, and Contextual Understanding of STEM*”, AACU, July 2014 – June 2017, \$300,000 (**not funded**).
- **(PI)**, “*Irregular Multivariate Time Series Analysis using Support Vector Machine*”, EWU Faculty Grants for Research and Creative Works (FGRCW), July 2014 – June 2015, \$10,000 (**not funded**).
- **(PI)**, “*Efficient Temporal Pattern Discovery in Evolving Network Data Streams*”, EWU Faculty Grants for Research and Creative Works (FGRCW), July 2012 – June 2013, \$10,000 (**funded**).
- **(PI)** “*Wildlife Database and Web Application Development for the Grand Canyon National Park*”, Funded by National Park Service, Aug 2010 – May 2012, \$27,248 (**funded**).
- **(Co-PI)** “*LITERAL: A Literate Analytics System for Ecology*”, (PI: Dr. Palmer, other Co-PIs: Drs. Doerry, Cobb, Pennington), NSF CDI, submitted Feb 2010, \$550,108 (**not funded**).
- **(Co-PI)** “*Overcoming Critical Barriers to the U.S. 20% Wind Vision*”, (PI: Dr. Tom Acker, other Co-PIs: Drs. Allison Kipple, Richard Ziolkowski, Steve Atkins, et al.) DOE Recovery Act Proposal, Jan 2010 – Dec 2011, \$10.3M (**not funded**).
- **(PI)** “*Research Permit Database Development and Application Programming for the Grand Canyon National Park*”, Funded by National Park Service, June 2009 – Sep 2010, \$22,430 (**funded**).
- **(Co-PI)** “*Rasters to Reason: Understanding Biological Responses to Climate Change*”, (PI: Dr. Pennington, other Co-PIs: Drs. Palmer, Doerry, and Cobb). NSF, submitted Nov 2008, \$1,542,525 (**not funded**).

- **(Co-PI)** “*Re-implementation of Commercial River Outfitters Trips Management and Coordination Web Portal*” (PI: Dr. Doerry), The Grand Canyon River Outfitters Association, 10/15/2007-12/31/2008, \$11,196.33 (**not funded**).
- **(PI)** “*An Anomaly Detection System for Network Intrusion*”, Funded by NAU Faculty Research Program, July 2006 – June 2007, \$6,000 (**funded**).

## **PROFESSIONAL SERVICE**

### **External Committees**

Technical Committee Member, the 3<sup>rd</sup> IEEE International Conference on Computational Intelligence and Applications, 2018.  
 Program Committee Member, Applied Computing 2018.  
 Program Committee Member, IEEE International Conference on Cyber-Security in Aerospace, Computer Science, and Electrical Engineering, 2017.  
 Program Committee Member, Applied Computing 2017.  
 Program committee, the 28<sup>th</sup> Modern Artificial Intelligence and Cognitive Science Conference, 2017.  
 Technical Committee Members of the 5th International Conference on Information and Knowledge Management, 2016.  
 Program committee, the 27<sup>th</sup> Modern Artificial Intelligence and Cognitive Science Conference, 2016.  
 External Reviewer, Columbia Basin College, BASIT program, 2015.  
 Program Committee Member, Applied Computing 2015.  
 Technical Committee Member, the 4<sup>th</sup> International Conference on Information and Knowledge Management, 2015.  
 Program Committee Member, the 26<sup>th</sup> Modern Artificial Intelligence and Cognitive Science Conference, 2015.  
 Technical Committee Member, the 3<sup>rd</sup> International Conference on Information and Knowledge Management, 2014.  
 Program Committee Member, the IADIS Applied Computing Conference, Since 2012.  
 Program Committee Member, the 23<sup>rd</sup> Midwest Artificial Intelligence and Cognitive Science Conference, 2012.  
 Web Co-Chair, Joint 6<sup>th</sup> International Conference on Soft Computing and Intelligent Systems and 12<sup>th</sup> International Symposium on Advanced Intelligent Systems, 2012 (received contribution award).  
 Program Committee Member, the 2<sup>nd</sup> International Computer Science and Technology Conference, 2009.

### **Reviewer**

Reviewer, MOBIMEDIA 2018, Workshop on Environmental Health and Air Pollution, 2018.  
 Reviewer, the 28<sup>th</sup> Modern Artificial Intelligence and Cognitive Science Conference, 2017.  
 Reviewer, Archives of Applied Science Research, 2017.  
 Reviewer, the UND-SCIEI International Conference on Cyber-Security in Aviation, Computer Science, and Electrical Engineering, 2017.  
 Reviewer, International Conference on Knowledge and Education Technology, 2016.  
 The Journal of Intelligent Information Systems, 2015.  
 Fuzzy Sets and Systems, An International Journal in Information Science and Engineering, 2013.  
 The 23<sup>rd</sup> Midwest Artificial Intelligence and Cognitive Science Conference, 2012-2013.  
 The International Journal of Emerging Technologies in Learning, 2011-2012.

Hawaii International Conference on System Sciences, 2006-2009.  
The Journal of Computers, Environment and Urban Systems, 2006-2009.

**Professional Organizations**

Member, Association for Computing Machinery (ACM), since 2006.  
Member, ACM Special Interest Group on Knowledge Discovery and Data Mining (ACM SIGKDD), since 2006.