

Vijay Mago, PhD

Research Lab: datalab.science
Google Scholar: scholar.google.com

Email: vmago@lakeheadu.ca
Mobile: +1-807-708-8773

EDUCATION

- **University of Memphis** Memphis, USA
Post-doctoral Research Fellowship
Supervisors: Dr. Santosh Kumar
January 2013 - July 2013
- **Simon Fraser University** Burnaby, Canada
Post-doctoral Research Fellowship
Supervisors: Drs. Peter Borwein and Vahid Dabbaghian
January 2011 - August 2012
- **Panjab University** Chandigarh, India
Supervisor: Dr. M. Syamla Devi
Title: Multi-Agent Medical System For Infant and Child Care Health Services in Rural India
October 2005 - March 2010
- **Guru Nanak Dev University** Amritsar, India
MSc Computer Science (Project -based) with Distinction
July 1998 - June 2001

HONORS AND AWARDS

- Contribution to Teaching Award, 2015 (Nominated) & 2018 (Awarded)
- Best Paper Award at the EAI International Conference on Big Data Technologies and Application, 2018
Paper title: *Birds of Prey: Identifying Lexical Irregularities in Spam on Twitter*
- Runner's up for the best paper award at the ACM SIGSIM-PADS conference on Principles of Advanced Discrete Simulation, 2015
Paper Title: *Exploring the Relationship between Adherence to Treatment and Viral Load through a New Discrete Simulation Model of HIV Infectivity.*

EMPLOYMENT

- **Research Chair, Faculty of Science and Environmental Studies** Thunder Bay, Canada
Lakehead University
January 2022 - December 2024
 - **Development of New Research Programs:** The aim of this research position is to develop a new research program on Ethical Issues in Natural Language Processing.
- **Chair, Department of Computer Science** Thunder Bay, Canada
Lakehead University
July 2020 - December 2021
 - **Development of New Programs:** Developed Senate documents to build two international partnerships; 2+2 HBSC program with Amity University, India and 3+1 with UNISC, Brazil.
 - **Development of AI Specialization program:** Developed documents for the Vector Institute (VI) to recognize Artificial Intelligence M.Sc. (thesis) program. The program is now eligible for entrance scholarships.
- **Associate Professor, Department of Computer Science** Thunder Bay, Canada
Lakehead University (Tenured)
August 2018 - till date
- **MSc Graduate Program Coordinator** Thunder Bay, Canada
Lakehead University
July 2018 - June 2020
 - **Development of New Programs:** Created three streams of MSc Program - course based, project based and thesis based.
 - **Development of Funding packages:** Worked with Deans and senior administration to develop full- funding packages for thesis based program.
 - **Automation of the Admission Process:** Developed the technology to automate the admission process (selecting top applicants from approximately 2000 applications).
- **Assistant Professor, Department of Computer Science** Thunder Bay, Canada
Lakehead University (Tenure-track)
August 2015 - July 2018
- **Assistant Professor, Department of Computer Science** Troy, USA
Troy University (Tenure-track)
August 2013 - July 2015

RESEARCH FUNDING (\$2.5M IN EXTERNAL GRANTS)

<ul style="list-style-type: none"> Design Automation and Optimization Using Artificial Intelligence <i>Mathematics of Information Technology and Complex Systems (MITACS)- Accelerate</i> <i>Role: Principal Investigator Status: Active</i> 	February 2021 - June 2025 \$138,664
<ul style="list-style-type: none"> Reliable and efficient real-time tools for collecting and analyzing datasets... <i>Natural Sciences and Engineering Research Council of Canada - Discovery Grant</i> <i>Role: Principal Investigator Status: Active</i> 	September 2019 - August 2024 \$140,000
<ul style="list-style-type: none"> Computational Ethics in Natural Language Processing <i>FSES Research Chair</i> <i>Role: Principal Investigator Status: Active</i> 	January 2022 - December 2024 \$60,000
<ul style="list-style-type: none"> Technology Advancement in existing AED... <i>Mathematics of Information Technology and Complex Systems (MITACS)- Accelerate</i> <i>Role: Principal Investigator Status: Active</i> 	June 2019 - February 2023 \$363,820
<ul style="list-style-type: none"> Natural Learning Outcome Processing: Completing an Online Transfer (Ext)... <i>Ontario Council on Articulation and Transfer</i> <i>Role: Principal Investigator Status: Active</i> 	April 2021 - March 2023 \$70,500
<ul style="list-style-type: none"> Coordinated Housing Access and Homeless Individuals... <i>Lakehead Social Planning Council</i> <i>Role: Principal Investigator Status: Active</i> 	April 2022 - March 2023 \$70,000
<ul style="list-style-type: none"> Niijii Indigenous Mentorship: Coding for the North <i>NSERC PromoScience</i> <i>Role: Principal Investigator Status: Active</i> 	April 2021 - March 2023 \$36,000
<ul style="list-style-type: none"> Analysis of Digital Classroom Technologies <i>Keewatin Patricia District School Board</i> <i>Role: Principal Investigator Status: Active</i> 	June 2021 - December 2022 \$39,812
<ul style="list-style-type: none"> Investigating the Services Provided by Family Physicians Across Ontario <i>Northern Ontario Academic Medicine Association</i> <i>Role: Collaborator Status: Active</i> 	May 2019 - March 2023 \$34,000
<ul style="list-style-type: none"> An Ethical Approach to Automatically Explaining Simulation... <i>Vice President, Research and Innovation Award</i> <i>Role: Principal Investigator Status: Active</i> 	September 2022 - August 2023 \$10,000
<ul style="list-style-type: none"> PromoScience Supplement for Science Odyssey <i>Natural Sciences and Engineering Research Council of Canada</i> <i>Role: Principal Investigator Status: Active</i> 	April 2022 - March 2023 \$5,000
<ul style="list-style-type: none"> Drone Aided Device-to-Device Networks for Communications... <i>Social Sciences and Humanities Research Council of Canada</i> <i>Role: Co-Principal Investigator Status: Completed</i> 	September 2022 - August 2022 \$250,000
<ul style="list-style-type: none"> Natural "Learning Outcome" Processing: Completing an Online... <i>Ontario Council on Articulation and Transfer</i> <i>Role: Principal Investigator Status: Completed</i> 	May 2019 - April 2022 \$285,000
<ul style="list-style-type: none"> The Text Simplification System(Ext) <i>Canada Revenue Agency</i> <i>Role: Principal Investigator Status: Completed</i> 	March 2021 - December 2021 \$39,985
<ul style="list-style-type: none"> Social simulation of strategic behaviour and contextual factors... <i>Mathematics of Information Technology and Complex Systems (MITACS)</i> <i>Role: Principal Investigator Status: Completed</i> 	August 2019 - July 2021 \$210,000
<ul style="list-style-type: none"> The Text Simplification System <i>Canada Revenue Agency</i> <i>Role: Principal Investigator Status: Completed</i> 	May 2019 - April 2020 \$25,000
<ul style="list-style-type: none"> Using Computer Simulation Modeling To Increase The Effectiveness... <i>Social Sciences and Humanities Research Council of Canada (SSHRC)</i> <i>Role: Co-Applicant Status: Completed</i> 	July 2016 - June 2019 \$196,043

- **Identifying Historic Variables of Success for Engineering Transfer Students** \$225,225
 ● Ontario Council on Articulation and Transfer (ONCAT) April 2017 - March 2019
 Role: Co-Applicant Status: Completed
- **Automating Gap Analysis of Learning Outcomes through NLP** \$171,020
 ● Ontario Council on Articulation and Transfer (ONCAT) April 2017 - March 2019
 Role: Principal Investigator Status: Completed
- **Implementation of the technology for Continuous Long-term Monitoring...** \$5,000
 ● MITACS- Globalink Research Award March 2018 - September 2018
 Role: Principal Investigator Status: Completed
- **Machine Learning for categorizing women's health risks** \$5,000
 ● MITACS- Globalink Research Award March 2018 - September 2018
 Role: Principal Investigator Status: Completed
- **Amazon Alexa for antibiotics interaction guidance system** \$5,000
 ● MITACS- Globalink Research Award March 2018 - September 2018
 Role: Principal Investigator Status: Completed
- **Creating Registry of Pregnant Women for Surveillance and Guidance** \$5,000
 ● NSERC- Undergraduate Student Research Award May 2018 - August 2018
 Role: Principal Investigator Status: Completed
- **Managing Emergency Room Visits for Dental Treatments** \$5,000
 ● NSERC- Undergraduate Student Research Award May 2018 - August 2018
 Role: Principal Investigator Status: Completed
- **Data Analytic R&D Centre** \$65,000
 ● Thicket Labs, New York January 2016 - December 2017
 Role: Principal Investigator Status: Completed
- **Honours Bachelors in Computer Science- Transfer Program** \$71,500
 ● Ontario Council on Articulation and Transfer (ONCAT) April 2016 - March 2017
 Role: Principal Investigator Status: Completed
- **Lakehead University - Start-up Grant** \$15,000
 ● Lakehead University August 2015 - April 2017
 Role: Principal Investigator Status: Completed

PUBLICATIONS

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- [J36]: Phatak, A., Savage, D.W., Ohle, R., Smith, J.D., Mago, V., 2022.: TESLEA: Medical Text Simplification using Reinforcement Learning. *JMIR Medical Informatics, In Press.*[SJR: Q2]
 - [J35]: Baxi, M.K.*, Sharma, R. and Mago, V., 2022.: Studying topic engagement and synergy among candidates for 2020 US Elections. *Social Network Analysis and Mining, 12(1), pp.1-15.* [SJR: Q1]
 - [J34]: Baxi, M.K.*, Philip, J. and Mago, V., 2022.: Resilience of political leaders and healthcare organizations during COVID-19. *PeerJ Computer Science, 8, p.e1121.* [SJR: Q2]
 - [J33]: Rao, G.*, Mago, V., Lingras, P. and Savage, D.W., 2022.: AEDNav: Indoor navigation for locating automated external defibrillator. *BMC Medical Informatics and Decision Making, 22(2), pp.1-17.* [SJR: Q1]
 - [J32]: Singhal, A.*, Baxi, M.K. and Mago, V., 2022.: Synergy Between Public and Private Health Care Organizations During COVID-19 on Twitter: Sentiment and Engagement Analysis Using Forecasting Models. *JMIR Medical Informatics, 10(8), p.e37829.* [SJR: Q2]
 - [J31]: Fisher, A.*, Gajderowicz, B., Latimer, E., Aubry, T. and Mago, V., 2022.: BEAUT: An Explainable Deep Learning Model for Agent-Based Populations With Poor Data. *Knowledge-Based Systems, 248, p.108836.*[SJR: Q1]
 - [J30]: Fisher, A.*, Patel, N., Patel, P., Patel, P., Krishnankutty, V., Bhat, V., Valani, P., Mago, V. and Rao, A., 2022.: An ethical visualization of the NorthCOVID-19 model. *PeerJ Computer Science, 8, p.e980* [SJR: Q2]
 - [J29]: Galgoczy, M.C., Phatak, A., Vinson, D., Mago, V.K. and Giabbanelli, P.J., 2022.: (Re) shaping online narratives: when bots promote the message of President Trump during his first impeachment. *PeerJ Computer Science, 8, p.e947.* [SJR: Q2]
 - [J28]: Chandrasekaran, D.* and Mago, V., 2022.: Automating transfer credit assessment-a natural language processing-based approach. *Computers, Materials & Continua, vol. 73, no.2, pp. 2257-2274.*[SJR: Q2]
 - [J27]: Khanam, K.Z.*, Srivastava, G. and Mago, V., 2022.: The homophily principle in social network analysis: A survey. *Multimedia Tools and Applications, pp.1-44.4* [SJR: Q1]
 - [J26]: Chandrasekaran, D.* and Mago, V., 2021.: Comparative analysis of word embeddings in assessing semantic similarity of complex sentences. *IEEE Access, 9, pp.166395-166408.* [SJR: Q1]

- [J25]: Bhat, V.* , Yadav, A., Yadav, S., Chandrasekaran, D. and Mago, V., 2021.: AdCOFE: Advanced Contextual Feature Extraction in conversations for emotion classification. *PeerJ Computer Science*, 7, p.e786.[SJR: Q2]
- [J24]: Zainab, K.* , Srivastava, G. and Mago, V., 2021.: Identifying health related occupations of Twitter Users through word embedding and deep neural networks. *BMC Bioinformatics*, 22(10), pp.1-16.[SJR: Q1]
- [J23]: Garg, A.* and Mago, V., 2021.: Role of machine learning in medical research: A survey. *Computer Science Review*, 40, p.100370.[SJR: Q1]
- [J22]: Chandrasekaran, D.* and Mago, V., 2021.: Evolution of semantic similarity—a survey. *ACM Computing Surveys (CSUR)*, 54(2), pp.1-37.[SJR: Q1]
- [J21]: Budhiraja, S.S.* and Mago, V., 2020.: A supervised learning approach for heading detection. *Expert systems*, 37(4), p.e12520.[SJR: Q2]
- [J20]: Mendhe, C.H.* , Henderson, N., Srivastava, G. and Mago, V., 2020.: A scalable platform to collect, store, visualize, and analyze big data in real time. *IEEE Transactions on Computational Social Systems*, 8(1), pp.260-269.[SJR: Q1]
- [J19]: Fisher, A.* , Mago, V. and Latimer, E., 2020.: Simulating the evolution of homeless populations in Canada using modified deep q-learning (mdql) and modified neural fitted q-iteration (mnfq) algorithms. *IEEE Access*, 8, pp.92954-92968.[SJR: Q1]
- [J18]: Khayyatkhoshevis, P.* , Choudhury, S., Latimer, E. and Mago, V., 2020.: Smart city response to homelessness. *IEEE Access*, 8, pp.11380-11392.[SJR: Q1]
- [J17]: Patel, K.D.* , Zainab, K., Heppner, A., Srivastava, G. and Mago, V., 2020.: Using Twitter for diabetes community analysis. *Network Modeling Analysis in Health Informatics and Bioinformatics*, 9(1), pp.1-16.[SJR: Q3]
- [J16]: Shah, N.* , Srivastava, G., Savage, D.W. and Mago, V., 2020.: Assessing Canadians health activity and nutritional habits through social media. *Frontiers in Public Health*, 7, p.400.[SJR: Q1]
- [J15]: Sharma, G.* , Srivastava, G. and Mago, V., 2019.: A framework for automatic categorization of social data into medical domains. *IEEE Transactions on Computational Social Systems*, 7(1), pp.129-140.[SJR: Q1]
- [J14]: Janda, H.K.* , Pawar, A., Du, S. and Mago, V., 2019.: Syntactic, semantic and sentiment analysis: The joint effect on automated essay evaluation. *IEEE Access*, 7, pp.108486-108503.[SJR: Q1]
- [J13]: Heppner, A.* , Pawar, A., Kivi, D. and Mago, V., 2019.: Automating articulation: Applying natural language processing to post-secondary credit transfer. *IEEE Access*, 7, pp.48295-48306.[SJR: Q1]
- [J12]: Pawar, A.* and Mago, V., 2019.: Challenging the boundaries of unsupervised learning for semantic similarity. *IEEE Access*, 7, pp.16291-16308.[SJR: Q1]
- [J11]: Sandhu, M.* , Vinson, C.D., Mago, V.K. and Giabbanelli, P.J., 2019.: From associations to sarcasm: mining the shift of opinions regarding the supreme court on twitter. *Online Social Networks and Media*, 14, p.100054.[SJR: Q1]
- [J10]: Robinson, K.* and Mago, V., 2018.: Birds of prey: identifying lexical irregularities in spam on twitter. *Wireless Networks*, pp.1-8.[SJR: Q2]
- [J9]: Shah, N.* , Willick, D. and Mago, V., 2018.: A framework for social media data analytics using Elasticsearch and Kibana. *Wireless networks*, pp.1-9. [SJR: Q1]
- [J8]: Belyi, E.* , Giabbanelli, P.J., Patel, I., Balabhadrapathruni, N.H., Abdallah, A.B., Hameed, W. and Mago, V.K., 2016.: Combining association rule mining and network analysis for pharmacosurveillance. *The Journal of Supercomputing*, 72(5), pp.2014-2034.[SJR: Q2]
- [J7]: Mago, V.K., Frank, R., Reid, A. and Dabbaghian, V., 2014.: The strongest does not attract all but it does attract the most—evaluating the criminal attractiveness of shopping malls using fuzzy logic. *Expert systems*, 31(2), pp.121-135.[SJR: Q2]
- [J6]: Mago, V.K., Morden, H.K., Fritz, C., Wu, T., Namazi, S., Geranmayeh, P., Chattopadhyay, R. and Dabbaghian, V., 2013.: Analyzing the impact of social factors on homelessness: a Fuzzy Cognitive Map approach. *BMC medical informatics and decision making*, 13(1), pp.1-19.[SJR: Q1]
- [J5]: Dabbaghian, V., Mago, V.K., Wu, T., Fritz, C. and Alimadad, A., 2012.: Social interactions of eating behaviour among high school students: a cellular automata approach. *BMC medical research methodology*, 12(1), pp.1-12.[SJR: Q1]
- [J4]: Mago, V.K., Mehta, R., Woolrych, R. and Papageorgiou, E.I., 2012.: Supporting meningitis diagnosis amongst infants and children through the use of fuzzy cognitive mapping. *BMC medical informatics and decision making*, 12(1), pp.1-12.[SJR: Q1]
- [J3]: Mago, V.K., Bakker, L., Papageorgiou, E.I., Alimadad, A., Borwein, P. and Dabbaghian, V., 2012.: Fuzzy cognitive maps and cellular automata: An evolutionary approach for social systems modelling. *Applied Soft Computing*, 12(12), pp.3771-3784.[SJR: Q1]
- [J2]: Giabbanelli, P.J., Torsney-Weir, T. and Mago, V.K., 2012.: A fuzzy cognitive map of the psychosocial determinants of obesity. *Applied soft computing*, 12(12), pp.3711-3724.[SJR: Q1]
- [J1]: Mago, V.K., Bhatia, N., Bhatia, A. and Mago, A., 2012.: Clinical decision support system for dental treatment. *Journal of Computational Science*, 3(5), pp.254-261.[SJR: Q1]

- [C38]: Garg, M., Saxena, C., Saha, S., Krishnan, V., Joshi, R. and Mago, V., 2022, June.: CAMS: An Annotated Corpus for Causal Analysis of Mental Health Issues in Social Media Posts. In *Proceedings of the Thirteenth Language Resources and Evaluation Conference* (pp. 6387-6396).
- [C37]: Khayyatkhooshnevis, P. *, Tillberg, S., Latimer, E., Aubry, T., Fisher, A. and Mago, V., 2022, June.: Comparison of Moderated and Unmoderated Remote Usability Sessions for Web-Based Simulation Software: A Randomized Controlled Trial. In *the 24th HCI International Conference, HCII 2022, Virtual Event, June 26–July 1, 2022, Proceedings, Part I* (pp. 232-251).
- [C36]: Garg, A. *, Savage, D.W., Choudhury, S. and Mago, V., 2021, December.: Predicting family physicians based on their practice using machine learning. In *2021 IEEE International Conference on Big Data (Big Data)* (pp. 4069-4077). *IEEE*.
- [C35]: Aditya, A. *, Zhou, L., Vachhani, H., Chandrasekaran, D. and Mago, V., 2021, October.: Collision Detection: An Improved Deep Learning Approach Using SENet and ResNext. In *2021 IEEE International Conference on Systems, Man, and Cybernetics (SMC)* (pp. 2075-2082). *IEEE*.
- [C34]: Lutz, C.B., Giabbanelli, P.J., Fisher, A. and Mago, V.K., 2021, July.: How many costly simulations do we need to create accurate metamodels? a case study on predicting hiv viral load in response to clinically relevant intervention scenarios. In *2021 Annual Modeling and Simulation Conference (ANNSIM)* (pp. 1-12). *IEEE*.
- [C33]: Emu, M., Chandrasekaran, D., Mago, V. and Choudhury, S., 2021, June.: Validating optimal COVID-19 vaccine distribution models. In *International Conference on Computational Science* (pp. 352-366). *Springer, Cham*.
- [C32]: Giabbanelli, P.J., Badham, J., Castellani, B., Kavak, H., Mago, V., Negahban, A. and Swarup, S., 2021, July.: Opportunities and challenges in developing covid-19 simulation models: Lessons from six funded projects. In *2021 Annual Modeling and Simulation Conference (ANNSIM)* (pp. 1-12). *IEEE*.
- [C31]: Qudar, M.M.A. *, Bhatia, P. and Mago, V., 2021, October.: ONSET: Opinion and Aspect Extraction System from Unlabelled Data. In *2021 IEEE International Conference on Systems, Man, and Cybernetics (SMC)* (pp. 733-738). *IEEE*.
- [C30]: Bhatt, R. *, Patel, M., Srivastava, G. and Mago, V., 2020, October.: A Graph Based Approach to Automate Essay Evaluation. In *2020 IEEE International Conference on Systems, Man, and Cybernetics (SMC)* (pp. 4379-4385). *IEEE*.
- [C29]: Fisher, A. *, Mohammed, E.A. and Mago, V., 2020, October.: TentNet: Deep Learning Tent Detection Algorithm Using A Synthetic Training Approach. In *2020 IEEE International Conference on Systems, Man, and Cybernetics (SMC)* (pp. 860-867). *IEEE*.
- [C28]: Barot, T. *, Srivastava, G. and Mago, V., 2020, September.: Determining Sufficient Volume of Data for Analysis with Statistical Framework. In *International Conference on Industrial, Engineering and Other Applications of Applied Intelligent Systems* (pp. 770-781). *Springer, Cham*.
- [C27]: Fisher, A. *, Adhikari, B., Zhai, C., Morgan, J.E., Mago, V.K. and Giabbanelli, P.J., 2020, May.: Predicting the resource needs and outcomes of computationally intensive biological simulations. In *2020 Spring Simulation Conference (SpringSim)* (pp. 1-12). *IEEE*.
- [C26]: Reddy, T. *, Srivastava, G. and Mago, V., 2020, April.: Testing the Causal Map Builder on Amazon Alexa. In *World Conference on Information Systems and Technologies* (pp. 449-461). *Springer, Cham*.
- [C25]: Patel, K.D. *, Heppner, A., Srivastava, G. and Mago, V., 2019, August.: Analyzing use of Twitter by diabetes online community. In *Proceedings of the 2019 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining* (pp. 937-944).
- [C24]: Praznik, L., Srivastava, G., Mendhe, C. and Mago, V., 2019, August.: Vertex-weighted measures for link prediction in hashtag graphs. In *2019 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM)* (pp. 1034-1041). *IEEE*.
- [C23]: Reddy, T. *, Giabbanelli, P.J. and Mago, V.K., 2019, July.: The artificial facilitator: guiding participants in developing causal maps using voice-activated technologies. In *International Conference on Human-Computer Interaction* (pp. 111-129). *Springer, Cham*.
- [C22]: Sandhu, M. *, Giabbanelli, P.J. and Mago, V.K., 2019, July.: From social media to expert reports: The impact of source selection on automatically validating complex conceptual models of obesity. In *International Conference on Human-Computer Interaction* (pp. 434-452). *Springer, Cham*.
- [C21]: Gupta, Y. *, Kumar, S. and Mago, V., 2019, July.: Pregnancy health monitoring system based on biosignal analysis. In *2019 42nd international conference on telecommunications and signal processing (TSP)* (pp. 664-667). *IEEE*.
- [C20]: Kumar, S., Gupta, Y. and Mago, V., 2019, January.: Health-monitoring of pregnant women: Design requirements, and proposed reference architecture. In *2019 16th IEEE Annual Consumer Communications & Networking Conference (CCNC)* (pp. 1-6). *IEEE*.
- [C19]: Budhiraja, S.S. * and Mago, V., 2018, November.: Extracting learning outcomes using machine learning and white space analysis. In *Proceedings of the 4th EAI International Conference on Smart Objects and Technologies for Social Good* (pp. 7-12).
- [C18]: Small, D. *, Wali, F., Gibb, C.M. and Mago, V., 2017, October.: Using open clinical data to create an embeddable prediction system for hospital stay. In *International Conference on Computing, Analytics and Networks* (pp. 23-33). *Springer, Singapore*.

- [C17]: Dikopoulou, Z., Papageorgiou, E., Mago, V. and Vanhoof, K., 2017, July.: A new approach using mixed graphical model for automatic design of fuzzy cognitive maps from ordinal data. In *2017 IEEE International Conference on Fuzzy Systems (FUZZ-IEEE)* (pp. 1-6). IEEE.
- [C16]: Patel, I. *, Nguyen, H., Belyi, E., Getahun, Y., Abdulkareem, S., Giabbanelli, P.J. and Mago, V., 2017, March.: Modeling information spread in polarized communities: Transitioning from legacy media to a Facebook world. In *SoutheastCon 2017* (pp. 1-8). IEEE.
- [C15]: Mago, V., Wu, T. and Dabbaghian, V., 2017, March.: A fuzzy clustering method based on topology structure and -connectedness. In *SoutheastCon 2017* (pp. 1-8). IEEE.
- [C14]: Liu, Q. *, Kumar, S. and Mago, V., 2017, January.: Safernet: Safe transportation routing in the era of internet of vehicles and mobile crowd sensing. In *2017 14th IEEE Annual Consumer Communications & Networking Conference (CCNC)* (pp. 299-304). IEEE.
- [C13]: Cervellini, P. *, Menezes, A.G. and Mago, V.K., 2016, December.: Finding trendsetters on yelp dataset. In *2016 IEEE symposium series on computational intelligence (SSCI)* (pp. 1-7). IEEE.
- [C12]: Singh, M., Levi, M.M., Joanis, P. and Mago, V.K., 2016, November.: Creating a predictive model for heart disease using Structural Equation Model & Fuzzy Cognitive Map. In *IEEE International Conference on Fuzzy Systems (FUZZ-IEEE)*. Vancouver
- [C11]: Singh, M., Martins, L.M., Joanis, P. and Mago, V.K., 2016, July.: Building a cardiovascular disease predictive model using structural equation model fuzzy cognitive map. In *2016 IEEE International Conference on Fuzzy Systems (FUZZ-IEEE)* (pp. 1377-1382). IEEE.
- [C10]: Giabbanelli, P.J. and Mago, V.K., 2016.: Teaching computational modeling in the data science era. *Procedia Computer Science*, 80, pp.1968-1977.
- [C9]: Kotkowski, M. *, Nguyen, H., Getahun, Y. and Mago, V.K., 2015, November.: A novel agent based method for intelligent public transportation system. In *Proceedings of the 1st International ACM SIGSPATIAL Workshop on Smart Cities and Urban Analytics* (pp. 85-93). Vancouver
- [C8]: Bhatia, A. *, Kumar, S. and Mago, V.K., 2015, September.: Gradient: a user-centric lightweight smartphone based standalone fall detection system. In *Portuguese Conference on Artificial Intelligence* (pp. 67-78). Springer, Cham.
- [C7]: Belyi, E. *, Patel, I., Reddy, A. and Mago, V., 2015, August.: A multi-agent based system for route planning. In *International Conference on Human Interface and the Management of Information* (pp. 500-512). Springer, Cham.
- [C6]: Rana, E. *, Giabbanelli, P.J., Balabhadrapathruni, N.H., Li, X. and Mago, V.K., 2015, June.: Exploring the relationship between adherence to treatment and viral load through a new discrete simulation model of hiv infectivity. In *Proceedings of the 3rd ACM SIGSIM Conference on Principles of Advanced Discrete Simulation* (pp. 145-156).
- [C5]: Bhatia, A. *, Mago, V. and Singh, R., 2014, September.: Use of soft computing techniques in medical decision making: A survey. In *2014 International Conference on Advances in Computing, Communications and Informatics (ICACCI)* (pp. 1131-1137). IEEE.
- [C4]: Pratt, S.F., Giabbanelli, P.J., Jackson, P. and Mago, V.K., 2012, June.: Rebel with many causes: A computational model of insurgency. In *2012 IEEE International Conference on Intelligence and Security Informatics* (pp. 90-95). IEEE.
- [C3]: Mago, V.K., Devi, M.S. and Mehta, R., 2007, September.: Decision making system: Agent diagnosing child care diseases. In *International Central and Eastern European Conference on Multi-Agent Systems* (pp. 316-318). Springer, Berlin, Heidelberg.
- [C2]: Mago, V.K., Devi, M.S. and Mehta, R., 2007, July.: Decision making system based on Bayesian network for an agent diagnosing child care diseases. In *AIME Workshop on Knowledge Management for Health Care Procedures* (pp. 127-136). Springer, Berlin, Heidelberg.
- [C1]: Mago, V.K. and Devi, M.S., 2007, January.: A Multi-Agent Medical System for Indian Rural Infant and Child Care. In *International Joint Conference on Artificial Intelligence* (pp. 1396-1401).
- **Provisional Patents:** AEDNav: Indoor navigation for locating automated external defibrillator. United States (March, 2021). *Inventors:* Gaurav Rao*, Vijay Mago
- **Provisional Patents:** Identifying and allocating resources during out of hospital cardiac arrest. United States (April, 2021). *Inventors:* Gaurav Rao*, Vijay Mago, Rory Beyer

* Primary Supervisory

COURSES OFFERED

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- **Big Data:** Fall 2015 (U), Fall 2016 (U), Fall 2017(U&G), Fall 2018 (U&G)
 - **Cloud Computing:** Winter 2016 (U), Fall 2016 (U), Fall 2017 (U)
 - **Clinical Decision Support:** Winter 2017 (U)
 - **Web Health Informatics:** Winter 2016 (U), Winter 2017 (U&G), Winter 2018 (U&G)
 - **Graduate Seminar Series:** Fall 2019 (G), Fall 2022 (G), Fall 2022(G)
 - **Core CS undergraduate Courses:** Multiple times over past 12 years

EDITORIAL SERVICES

- **March 2022 - till date:** Associate Editor, PeerJ Computer Science, Journal
- **January 2021 - till date:** Associate Editor, Humanities & Social Sciences Communications, Journal
- **March 2018 - till date:** Associate Editor, Associate Editor, IEEE Access, Journal
- **January 2013 - till date:** Associate Editor, BMC Medical Informatics and Decision Making, Journal
- **January 2017 - December 2017:** Editor, Advanced Data Analytics in Health, Book