

Mohammad Amin Morid

Associate Professor
Department of Information Systems & Analytics
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Santa Clara University



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EDUCATION

Ph.D., Business Administration - Information Systems

University of Utah, 2013-2018.

Dissertation: *Leveraging Temporal Patient Data for Enhanced Healthcare Predictive Analytics*

M.Sc., Information Technology - Electronic Commerce

Amirkabir University of Technology, 2009-2011.

Thesis: *Security Improvement of Recommender Systems by Analysis and Modeling of Influence Based Attacks*

B.Sc., Software Engineering

Amirkabir University of Technology, 2005-2009.

RESEARCH SUMMARY

My research lies at the intersection of information systems and medical informatics, with a focus on developing and applying machine learning methods to large-scale healthcare data. My work examines public health, patient outcomes, and healthcare decision-making, including healthcare cost prediction and risk adjustment, algorithmic fairness, social determinants of health, and personalized decision support. Across these areas, I aim to develop practical data-driven solutions that improve resource allocation, reduce healthcare costs and risks, and support better patient and provider decisions.

PUBLICATIONS

Journals

Morid, M.A. and Sheng, O.R.L. "Healthcare cost prediction for heterogeneous patient profiles using deep learning models with administrative claims data". *Information Systems Research (ISR)*, 36, 4, 1968-1992, 2025 ([Link](#)).

Morid, M.A., Tillman, R.E., Halperin, E. "Social Barrier Index (SBI): Enhancing social determinants of health and their association with healthcare clinical outcomes, utilization and costs". *Journal of Public Health Management & Practice (JPHMP)*, 10, 1097, 2025 ([Link](#)).

Morid, M.A., Sheng, O.R.L., Dunbar, J. "Time Series Prediction Using Deep Learning Methods in Healthcare". *ACM Transactions on Management Information Systems (TMIS)*, 2023 ([Link](#)).

Morid, M.A., Lau, M., Del Fiore, G. "Predictive analytics for step-up therapy: Supervised or semi-supervised learning?". *Journal of Biomedical Informatics (JBI)*, 119, 103842, 2021 ([Link](#)).

Morid, M.A., Borjali, A., Del Fiore, G. "A scoping review of transfer learning research on medical image analysis using ImageNet". *Computers in Biology and Medicine (CBM)*, 128, 104115, 2021 ([Link](#)).

Borjali, A., Chen, A.F., Bedair, H.S., Muratoglu, O.K., **Morid, M.A.**, Varadarajan, K.M. "Comparing the performance of a deep convolutional neural network with orthopaedic surgeons on the identification of total hip prosthesis design from plain radiographs". *Medical Physics (MP)*, 2021 ([Link](#)).

Morid, M.A., Sheng, O.R.L., Kawamoto, K., Ault, T., Dorius, J., Abdelrahman, S. "Learning Hidden Patterns from Patient Multivariate Time Series Data Using Convolutional Neural Networks: A Case Study of Healthcare Cost Prediction". *Journal of Biomedical Informatics (JBI)*, 111, 103565, 2020 ([Link](#)).

Morid, M.A., Sheng, O.R.L., Del Fioli, G., Facelli, J.C., Bray, B.E., Abdelrahman, S. "Temporal Pattern Detection to Predict Adverse Events in Critical Care: Case Study With Acute Kidney Injury". *Journal of Medical Internet Research (JMIR) Medical Informatics*, 8, 3, e14272, 2020 ([Link](#)).

Borjali, A., Chen, A.F., Muratoglu, O.K., **Morid, M.A.**, Varadarajan, K.M. "Detecting total hip replacement prosthesis design on plain radiographs using deep convolutional neural network". *Journal of Orthopedic Research (JOR)*, 38, 7, 1465-1471, 2020 ([Link](#)). (Best Paper Award)

Morid, M.A., Sheng, O.R.L., Kawamoto, K., Ault, T., Dorius, J., Abdelrahman, S. "Healthcare cost prediction: Leveraging fine-grain temporal patterns". *Journal of Biomedical Informatics (JBI)*, 91, 103-113, 2019 ([Link](#)).

Bian, J., **Morid, M.A.**, Jonnalagadda, S., Luo, G., and Del Fioli, G. "Automatic Identification of High Impact Articles in PubMed to Support Clinical Decision Making". *Journal of Biomedical Informatics (JBI)*, 73, 95-103, 2017 ([Link](#)).

Morid, M.A., Fiszman, M., Raja, K., Jonnalagadda, S. and Del Fioli, G. "Classification of Clinically Useful Sentences in Clinical Evidence Resources". *Journal of Biomedical Informatics (JBI)*, 60, 14-22, 2016 ([Link](#)).

Morid, M.A., Shajari, M., Hashemi, A.R. "Defending Recommender Systems by Influence Analysis". *Information retrieval*, 17, 2, 137-152, 2013 ([Link](#)).

Morid, M.A., Shajari, M. "An Enhanced E-Commerce Trust Model for Community Based Centralized Systems". *Electronic Commerce Research*, 12, 4, 409-427, 2012 ([Link](#)).

Conferences

Morid, M.A. and Sheng, O.R.L. "Enhancing Cost Prediction in Capitation Payment Models: A Deep Learning Framework for Addressing Patient Heterogeneity in Healthcare". Conference on Health IT and Analytics (CHITA), April 26-27, Austin, TX, 2025.

Morid, M.A. and Sheng, O.R.L. "Optimal resource allocation for high-need high-cost patients by accurate cost prediction using deep learning models". Adoption and Use of AI in Healthcare, Production and Operations Management Society (POMS), May 21-25, Orlando, FL, 2023.

Morid, M.A., Sheng, O.R.L., Dunbar, J. "Predictive analytics for healthcare decision making with unbalanced cost and risk". Data Mining & Decision Analytics (DMDA), INFORMS, October 24-27, Anaheim, California, 2021.

Morid, M.A., Sheng, O.R.L., Kawamoto, K., Abdelrahman, S. "Leveraging Multivariate Time Series of Claims Data Using Deep Learning Methods For Healthcare Cost Prediction". Data Mining and Machine Learning in Healthcare, INFORMS, October 20-23, Seattle, Washington, 2019.

Morid, M.A., Kawamoto, K., Ault, T., Dorius, J., Abdelrahman, S. "Supervised Learning Methods for Predicting Healthcare Costs: Systematic Literature Review and Empirical Evaluation". American Medical Informatics Association (AMIA), November 4-8, Washington, DC, 2017.

Morid, M.A., Sheng, O.R.L., Abdelrahman, S. "Leveraging Patient Similarity and Time Series Data in Healthcare Predictive Models". Healthcare Informatics & Health Information Technology (SIGHealth), Americas Conference on Information Systems (AMCIS), August 10-12, Boston, MA, 2017 - 7th Annual Workshop on Health IT and Economics (WHITE), October 21-22, Washington, DC, 2016.

Morid, M.A., Sheng, O.R.L., Abdelrahman, S. "Healthcare Predictive Analytics for Patient Time Series with Non-ignorable Missingness: The Case of Early ICU Mortality Prediction ". Data Mining & Decision Analytics (DMDA), INFORMS, November 13-16, Nashville, Tennessee, 2016 (Best Paper Award).

Morid, M.A., Sheng, O.R.L., Abdelrahman, S. "PPMF: A Patient-based Predictive Modeling Framework for Early ICU Mortality Prediction ". Healthcare Analytics and Medical Decision Making, INFORMS, November 13-16, Nashville, Tennessee, 2016.

Morid, M.A., Jonnalagadda, S., Fiszman, M., Raja, K., Del Fioli, G. "Classification of Clinically Useful Sentences in MEDLINE". American Medical Informatics Association (AMIA), November 14-18, San Francisco, California, 2015.

Morid, M.A., Sheng, O.R.L. "Unusual Side Effect Opinion Detection". 25th Workshop on Information Technologies and Systems (WITS), December 12-13, Dallas, Texas, 2015.

Morid, M.A., Sheng, O.R.L. "Spam Drug Review Detection Using Unsupervised Learning". Data Mining & Decision Analytics (DMDA), INFORMS, November 1-4, Philadelphia, Pennsylvania, 2015.

Morid, M.A., Shajari, M., Hashemi, A.R. "Who are the Most Influential Users in a Recommender System?". International Conference on Electronic Commerce, August 3-5, Liverpool, England, 2011.

Morid, M.A., Omidvar, A., Shahriari, H.R. "An Enhanced Method for Computation of Similarity between the Contexts in Trust Evaluation using Weighted Ontology". IEEE International Conference on Trust, Security and Privacy in Computing and Communications, November 16-18, Changsha, China, 721 -725, 2011.

Aghili, Gh., Shajari, M., Khadivi, Sh., **Morid, M.A.** "Using Genre Interest of Users to Detect Profile Injection Attacks in Movie Recommender Systems". IEEE International Conference on Machine Learning and Applications, December 18-21, Honolulu, Hawaii, 49 – 52, 2011.

Morid, M.A., Ghasabzadeh, N., Hashemi, A.R. "Selection of the Most Effective Indicators for Organizations in Uncertain Environment using Expert Systems Based on Neural Networks ". International Conference on Strategic Management, September 27-29, Tehran, Iran, 57 – 68, 2010.

TEACHING EXPERIENCE

Deep Learning (Graduate)

Instructor, ISA Department, Leavey School of Business, Santa Clara University, U.S.A., 2022 - Current.

Social Media Analytics (Undergraduate)

Instructor, ISA Department, Leavey School of Business, Santa Clara University, U.S.A., 2020 - Current.

Database Management Systems (Undergraduate)

Instructor, ISA Department, Leavey School of Business, Santa Clara University, U.S.A., 2018 - Current

Big Data Analytics (Graduate)

Instructor, OIS Department, David Eccles School of Business, University of Utah, U.S.A., 2018.

Business Statistics (Undergraduate)

Instructor, OIS Department, David Eccles School of Business, University of Utah, U.S.A., 2016 - 2017.

WORK EXPERIENCE

Associate Professor, Santa Clara University

Santa Clara, California, United States, Sep 2026 – Present.

Assistant Professor, Santa Clara University

Santa Clara, California, United States, Sep 2018 – Aug 2026.

Healthcare Data Science Consultant

Optum AI, United Health Group, Minnesota, United States, Jan 2023 – Present.

Healthcare Data Science Consultant

Gilead Sciences, Inc., California, United States, Jan 2020 – Aug 2021.

Senior Data Scientist in Knowledge Management and Mobilization

University of Utah Health Care, Salt Lake City, Utah, United States, May 2015 – Jan 2016.

Design Manager for Business Intelligence Fraud Detection Systems in Iran's Mellat Bank

Tehran, Iran, November 2011 – Aug 2013.

Senior Designer for Business Intelligence Marketing Systems in Iran's Post Bank

Tehran, Iran, July 2011 – Feb 2012.

Senior Developer for Business Intelligence Credit Scoring Systems in Iran's Saderat Bank

Tehran, Iran, June 2010 – July 2011.

JOURNAL REFEREE

Management Information Systems Quarterly (MISQ), Journal of Biomedical Informatics (JBI), Information Systems Research (ISR), Journal of the American Medical Informatics Association (JAMIA), ACM Transactions on Management Information Systems (TMIS), Decision Support Systems (DSS), Journal of Medical Internet Research (JMIR), Journal of Artificial Intelligence Research (JAIR), BMC Medical Informatics and Decision Making, PLOS ONE, Artificial Intelligence Review (AIRE)
