Ayoub Bagheri

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EXPERIENCE

Utrecht University 2020–Now
Tenured Assistant Professor in Applied Data Science

Utrecht University, University Medical Center Utrecht 2017–2020
PhD in Methodology and Statistics

University of Kashan 2015–2017
Researcher in Text Mining

University of Twente 2012
Research Visit Human Media Interaction Group

Isfahan University of Technology 2010–2014
PhD in Computer Engineering

Isfahan University of Technology 2007–2009
MSc in Artificial Intelligence

RESEARCH AND TEACHING INTERESTS

Applied Data Science	Data Mining
Text Mining	Natural Language Processing
Statistical Learning	Machine Learning
Deep Learning	Health Informatics

GRANTS

DEEP-ENIGMA: A DEEP nEural Network for Image seGMentation to classify and quantify Atherosclerotic disease based on high-resolution scanned histological slides, €5,000, Focus Area Applied Data Science, Utrecht University, 2020

CONVOCALS: A CONVOlutional neural network to predict symptoms and major secondary CArdiovascuLar events based on high-resolution scanned histological Slides, €5,000, Focus Area Applied Data Science, Utrecht University, 2019

Deep neural networks for ICD-10 classification of diagnosis registration in cardiovascular notes to allow data mining in electronic health records, €5,000, Focus Area Applied Data Science, Utrecht University, 2018

Automated information extraction from patients' clinical data using text analysis techniques, €5,000, Focus Area Applied Data Science, Utrecht University, 2018

PUBLICATIONS

Bagheri, A., Sammani, A., Van der Heijden, P. G. M., Asselbergs, F. W., & Oberski, D. L. (2020). ETM: Enrichment by topic modeling for automated clinical sentence classification to detect patients' disease history. *Journal of Intelligent Information Systems*, 55(2), 329-349.

Bagheri, A., Groenhof, T. K. J., Veldhuis, W. B., De Jong, P. A., Asselbergs, F. W., & Oberski, D. L. (2020). Multimodal learning for cardiovascular risk prediction using EHR data. *In Proceedings of the 11th ACM Conference on Bioinformatics, Computational Biology, and Health Informatics (ACM BCB 2020).*

Bagheri, A., Sammani, A., Van der Heijden, P. G. M., Asselbergs, F. W., & Oberski, D. L. (2020). Automatic ICD-10 classification of diseases from Dutch discharge letters. *In Proceeding of the 13th International Joint Conference on Biomedical Engineering Systems and Technologies*, 281-289.

Boeschoten, L., Van Kesteren, E. J., **Bagheri, A.**, & Oberski, D. L. (2020). Fair inference on error-prone outcomes. *ECAI conference 2020 workshop: Artificial Intelligence for a Fair, Just and Equitable World.*

Bagheri, A., Groenhof, T. K. J., Asselbergs, F. W., Haitjema, S., Bots, M. L., Veldhuis, W. B., De Jong, P. A., & Oberski, D. L. (2020, submitted). Using chest x-ray reports for prediction of recurrence of major cardiovascular events in cardiovascular patients.

Sammani, A., **Bagheri, A.**, Van der Heijden, P. G. M., Te Riele, A., Baas, A., Oberski, D. L., Asselbergs, F. W. (2020, submitted). Automatic multilabel detection of ICD10 codes in discharge letters from cardiology.

Van de Leur, R. R., Boonstra, M. J., **Bagheri, A.**, Roudijk, R. W., Sammani, A., Taha, K., Doevendans, P. A. F. M., Van der Harst, P., Van Dam, P. M., Hassink, R. J., Van Es, R., & Asselbergs F. W. (2020, submitted). Big data and artificial intelligence: Opportunities and threats in electrophysiology.

Ferdinands, G., Schram, R., De Bruin, J., **Bagheri, A.**, Oberski, D., Tummers, L., & Van de Schoot, R. (2020, submitted). Interactive screening prioritization in systematic reviews by employing active learning.

Sammani, A., Jansen, M., Linschoten, M., **Bagheri, A.**, De Jonge, N., Kirkels, H., Van Laake, L., Vink, A., Van Tintelen, J. P., Dooijes, D., Te Riele, A., Harakalova, M., Baas, A. F., & Asselbergs, F. W. (2019). UNRAVEL: Big data analytics research data platform to improve care of patients with cardiomyopathies using routine electronic health records and standardized biobanking. *Netherlands Heart Journal*, 27(9), 426-434.

Bagheri, A., Oberski, D. L., Sammani, A., Van der Heijden, P. G. M., Asselbergs, F. W. (2019). SALTClass: Classifying clinical short notes using background knowledge from unlabeled data. *bioRxiv 801944.*

Bagheri, A. (2019). Integrating word status for joint detection of sentiment and aspect in reviews. *Journal of Information Science*, 45(6), 736-755.

Sedighi, Z., Ebrahimpour-Komleh, H., **Bagheri, A.**, & Kosseim, L. (2019). Learning to identify fake opinion reviews using a neural network with attention. *In Proceeding of the 32nd International Artificial Intelligence Research Society Conference*, 245-248.

Asgarnezhad, R., Monadjemi, S. A., Soltanaghaei, M., & **Bagheri, A.** (2018). SFT: A model for sentiment classification using supervised methods on Twitter. *Journal of Theoretical & Applied Information Technology*, 96(8), 2242-2251.

Afsharizadeh, M., Ebrahimpour-Komleh, H., & **Bagheri, A.** (2018). Query-oriented text summarization using sentence extraction technique. *In Proceeding of the 4th IEEE International Conference on Web Research*, 128-132.

Sedighi, Z., Ebrahimpour-Komleh, H., & **Bagheri, A.** (2017). RLOSD: representation learning based opinion spam detection. *In Proceeding of the 3rd IEEE Conference on Intelligent Systems and Signal Processing*, 74-80.

Zaghian, A., & **Bagheri, A.** (2016). A combined model of clustering and classification methods for preserving privacy in social networks against inference and neighborhood attacks. *International Journal of Security and Its Applications*, 10(1), 95-102.

Bagheri, A., Saraee, M., & Nadi, S. (2015). PSA: A hybrid feature selection approach for Persian text classification. *Journal of Computing and Security, Special Issue in Data Mining and Knowledge Discovery*, 1(4), 261-272.

Bagheri, A., Saraee, M., & De Jong, F. (2014). ADM-LDA: An aspect detection model based on topic modeling by using structures of reviews. *Journal of Information Science*, 40(5), 621-636.

Bagheri, A., Saraee, M., & De Jong, F. (2014). Care more about customers: Unsupervised domain-independent aspect detection for sentiment analysis of customer reviews. *Knowledge-Based Systems*, 52, 201–213.

Bagheri, A., & Saraee, M. (2014). Persian sentiment analyzer: A framework based on a novel feature selection method. *International Journal of Artificial Intelligence*, 12(2), 115-129.

Bagheri, A., Saraee, M., & De Jong, F. (2013). An unsupervised aspect detection model for sentiment analysis of reviews. *Natural Language Processing and Information Systems NLDB2013*, 140-151.

Saraee, M., & **Bagheri, A.** (2013). Feature selection methods in Persian sentiment analysis. *Natural Language Processing and Information Systems NLDB2013*, 303-308.

Bagheri, A., Saraee, M., & De Jong, F. (2013). Latent Dirichlet Markov allocation for sentiment analysis. *In Proceeding of the Fifth European Conference on Intelligent Management Systems in Operations*, 90-96.

Bagheri, A., Saraee, M., & De Jong, F. (2013). Sentiment classification in Persian introducing a mutual information-based method for feature selection. *In Proceedings of the 21st Iranian Conference on Electrical Engineering*, 1-6.

Nadi, S., Saraee, M., & **Bagheri, A.** (2011). A hybrid recommender system for dynamic web users. *International Journal of Multimedia and Image Processing*, 1(1), 3-8.

Moghimi, M., Saraee, M., & **Bagheri, A.** (2011). Modeling batch annealing process using data mining techniques for cold rolled steel sheets. *In Proceedings of the First International Workshop on Data Mining for Service and Maintenance*, 18-22.

Nadi, S., Saraee, M., & **Bagheri, A.** (2010). FARS: Fuzzy ant based recommender system for web users. *International Journal of Computer Science Issues*, 7(6), 203-209.

Norouzzadeh, M., **Bagheri, A.**, & Saraee, M. (2009). Web search personalization: A fuzzy adaptive approach. *In Proceeding of the 2nd IEEE International Conference on Computer Science and Information Technology*, 143-148.

Bagheri, A., Akbarzadeh, M., & Saraee, M. (2008). Finding shortest path with learning algorithms. *International Journal of Artificial Intelligence*, 1(8), 86-95.

ACADEMIC SERVICE

Member of the Association for Computing Machinery (ACM), 2020–Now

Member of the Netherlands Society for Statistics and Operations Research (VVSOR), 2020–Now

Member of the Institute for Systems and Technologies of Information, Control and Communication (INSTICC), 2020–Now

Member of Ph.D. Council in the Faculty of Social & Behavioural Sciences, Utrecht University, 2019–Now

Organizer of Deep Learning Reading Group, Methodology and Statistics, Utrecht University, 2018–Now

Member of the Open Science Community Utrecht, 2018–Now

Member of the MSDSLab, Methodology and Statistics, Utrecht University, 2017–Now

Reviewer: *Knowledge-Based Systems* (Elsevier), *Journal of Information Science* (SAGE), *Artificial Intelligence Review* (Springer), *Journal of Experimental & Theoretical Artificial Intelligence* (Taylor and Francis), *Soft Computing Journal* (Springer)

TEACHING EXPERIENCE

Utrecht University (2019-2020), *Data Analysis and Visualisation*, course received 8.3/10.0 total rating from student evaluations

UMC Utrecht (Summer 2019), *Big Data in Health Research*

Utrecht University (Summer 2019), *Data Science: Statistical Programming with R*

Utrecht University (2018-2019), *Data Analysis and Visualisation*, `http://uudav.nl/`

UMC Utrecht (Summer 2018), *Big Data in Health Research*

University of Kashan (2017), *Web Mining and Search Engines*

University of Kashan (2017), *Advanced Data Mining*, course received 18.37/20.00 total rating from student evaluations

University of Kashan (2015), *Algorithm Design*, course received 18.19/20.00 total rating from student evaluations

University of Kashan (2015), *Advanced C++ Programming*, course received 17.75/20.00 total rating from student evaluations

University of Kashan (2014), *Advanced Database Systems*

Isfahan University of Technology (2012), *Advanced Data Mining*, course received 17.59/20.00 total rating from student evaluations

Isfahan University of Technology (2011), *Introduction to Programming*, course received 18.02/20.00 total rating from student evaluations