

# Ayoub Bagheri (Curriculum Vitae)

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Data scientist and researcher in the Department of Cardiology, Division of Heart and Lungs,  
University Medical Center Utrecht, Utrecht, the Netherlands.

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Department of Methodology and Statistics, Faculty of Social Sciences, Utrecht University,  
Utrecht, the Netherlands.

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## Research interests

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- Medical Data Mining
- Machine Learning
- Text Mining
- Natural Language Processing

## Work experience

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Dec 2017 – Now	<b>University Medical Center Utrecht</b> Data scientist and researcher Department of Cardiology	<b>Utrecht, the Netherlands</b>
Jan 2015 – Dec 2017	<b>University of Kashan</b> Assistant Professor Data Mining and Machine Learning	<b>Kashan, Iran</b>
Sep 2009 – Jun 2014	<b>Isfahan University of Technology</b> PhD Researcher Data Mining, Sentiment Analysis Research Area, Thesis: “Aspect-based Sentiment Analysis for Online Reviews Based on Weakly Supervised Approaches”, Sabbatical in University of Twente, The Netherlands	<b>Isfahan, Iran</b>
Apr 2013 – Aug 2015	<b>Naghsheh Negar Arya Corporation</b> Technical Manager, Database & Software Consultant Designing an Integrated Decision Support Systems for Municipal Spatial Database	<b>Isfahan, Iran</b>
Apr 2011 – Aug 2015	<b>Arya Polymer Pishgam Corporation</b> Software Consultant	<b>Isfahan, Iran</b>
May 2010 – Apr 2011	<b>Nasle Ayandeh Sepahan Corporation</b> Technical Manager, Software Analyzer Design and Implementation of Central Citizen Database based on Integration of Databases of Province Organization, Isfahan	<b>Isfahan, Iran</b>
Sep 2007 – May 2010	<b>Isfahan University of Technology</b> Researcher in Data Mining Text Classification, Implementing two new methods for Feature Selection	<b>Isfahan, Iran</b>

## Education

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Dec 2017 – Now	<b>Utrecht University</b> Researcher Department of Methodology and Statistics	<b>Utrecht, the Netherlands</b>
Sep 2009 – Jun 2014	<b>Isfahan University of Technology</b> PhD in Computer Eng. Artificial Intelligence, GPA 18.02 (out of 20)	<b>Isfahan, Iran</b>
May 2012 – November 2012	<b>University of Twente</b> Human Media Interaction Group, (Sabbatical leave)	<b>Enschede, The Netherlands</b>
Sep 2007 – Aug 2009	<b>Isfahan University of Technology</b> MSc in Computer Eng. Artificial Intelligence, GPA 18.12 (out of 20)	<b>Isfahan, Iran</b>
Sep 2003 – Jul 2007	<b>Ferdowsi University of Mashhad</b> BSc in Software Engineering,	<b>Mashhad, Iran</b> GPA 15.14 (out of 20)

## Qualifications and Expertise

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- High value placed on teamwork, flexibility, and quality interpersonal communication
- Strong analytical, conceptual, and organizational skills
- Prompt in planning and implementing agreed-upon proposals and ideas
- Expert knowledge and great experiences in software analysis and programming languages such as:
  - C, C++, C#, Java
  - Python
  - MatLab
  - Clementine, Orange, Weka.
  - Stanford's NLP toolkit in Java. NLTK, SpaCy, Keras and Pytorch in Python.
  - R Studio
  - Hadoop
  - Jupyter and Beaker notebook

## Languages skills

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- Persian (Mother tongue)
- English (Fluent), **IELTS Band Score: 7.5**
  - (Listening: 8.5, Reading: 8, Writing: 6, Speaking: 7)
- Dutch: Beginner

## Achievements

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- Honored with membership of Iran's National Elites Foundation, 2014.
- Awarded PhD Grant from Iran Ministry of Science, 2013.
- Funded Sabbatical study for six months from Iran Ministry of Science for University of Twente (Human Media Interaction group), the Netherlands, 2012.
- Placed 2nd among all of computer engineering MSc students (19 students) at the Isfahan University of Technology, 2009.
- Placed 149th among more than 7000 participants in the university entrance exam, Iran, 2007.

## Teaching

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|--------------------------------|----------------------------|
| • Machine Learning (MSc level) | • Discrete Mathematics     |
| • Data Mining (MSc level)      | • Introduction to Database |
| • Web Mining (MSc level)       | • Data Structures in C++   |
| • Introduction to Programming  | • Algorithm Design         |
| • C++ Programming              | • Artificial Intelligence  |

## Publications

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### • Journals:

- **A. Bagheri**, D. Oberski, P.G.M. van der Heijden, A. Sammani, and F.W. Asselbergs, “An unsupervised enrichment framework for classifying clinical cardiovascular notes”, IEEE Transactions on Industrial Informatics, Submitted June 2018.
- **A. Bagheri**, M. Saraee, F. de Jong, *ADM-LDA: An Aspect Detection Model based on Topic Modeling by Using Structures of Reviews*, Journal of Information Science, ISI (IF: 1.238), SAGE Publication, April 2014.
- **A. Bagheri**, M. Saraee, F. de Jong, *Care more about customers: unsupervised domain-independent aspect detection for sentiment analysis of customer reviews*, Knowledge-Based Systems Journal, ISI (IF: 4.104), Elsevier, Volume 52, November 2013, Pages 201–213, Doi: <http://dx.doi.org/10.1016/j.knosys.2013.08.011>
- **A. Bagheri**, M. Saraee, F. de Jong, *JASE: A Joint Aspect-Sentiment Extraction Model for Sentiment Analysis in Online Reviews*, IEEE Transactions on Affective Computing, IEEE, Second revision, December 2013.
- S. Nadi, M. Saraee, **A. Bagheri**, *A Hybrid Recommender System for Dynamic Web Users*, International Journal of Multimedia and Image Processing (IJMIP), Volume 1, Issue 1, March 2011.

- S. Nadi, M. Saraee, **A. Bagheri**, *FARS: Fuzzy Ant based Recommender System for Web Users*, IJCSI International Journal of Computer Science Issues, Vol. 7, Issue 6, November 2010.
- **A. Bagheri**, M. Akbarzadeh, M. Saraee, *Finding Shortest Path with Learning Algorithms*, International Journal of Artificial Intelligence, Volume 1, Number A08, Autumn 2008.
- **A. Bagheri**, M. Saraee, *Persian Sentiment Analyzer: A Framework based on a Novel Feature Selection Method*, International Journal of Artificial Intelligence (IJAI), Accepted, 2014.
- **A. Bagheri**, M. Saraee, S. Nadi, *PSA: A Hybrid Feature Selection Approach for Persian Text Classification*, Journal of Computing and Security, Special Issue in Data Mining and Knowledge Discovery, 2015.
- A. Zaghian, **A. Bagheri**, *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, p. 95-110, 2016.

#### • **Conference Papers:**

- **A. Bagheri**, M. Saraee, F. de Jong, *Latent Dirichlet Markov Allocation for Sentiment Analysis*, in proceeding of the Fifth European Conference on Intelligent Management Systems in Operations, Manchester, UK, July 2013.
- **A. Bagheri**, M. Saraee, F. de Jong, *An Unsupervised Aspect Detection Model for Sentiment Analysis of Reviews*, in proceeding of 18th International Conference on Application of Natural Language to Information Systems, Springer, Manchester, UK, June 2013.
- M. Saraee, **A. Bagheri**, *Feature Selection Methods in Persian Sentiment Analysis*, in proceeding of 18th International Conference on Application of Natural Language to Information Systems, Springer, Manchester, UK, June 2013.
- **A. Bagheri**, M. Saraee, F. de Jong, *Sentiment Classification in Persian Introducing a Mutual Information-based Method for Feature Selection*, 21st Iranian Conference on Electrical Engineering, Mashhad, Iran, May 2013.
- M. Moghimi, M. Saraee, **A. Bagheri**, *Modeling Batch Annealing Process Using Data Mining Techniques for Cold Rolled Steel Sheets*, KDD4Service '11 ACM, California, USA, 2011.
- Z. Ghadiri, M. Saraee, **A. Bagheri**, *Missing Values Techniques for Large Datasets (In Persian)*, in proceeding of 5th Data Mining Conference, Amirkabir University, Tehran, 2011.
- M. Moghimi, M. Saraee, **A. Bagheri**, *Modeling Annealing Process Using Data Mining Techniques (In Persian)*, 3rd CEIT, Hamedan, Iran, February 2011.
- **A. Bagheri**, M. Saraee, M. A. Montazeri, *Persian Text Classification: A new Method based on SVM and TFV (In Persian)*, International conference on Industrial Engineering, Isfahan University of Technology, Isfahan, 2010.
- S. Nadi, M. Saraee, **A. Bagheri**, *An Ant based Web Recommender system (In Persian)*, 4rd Iranian Data Mining Conference, Sharif University, Tehran, December 1st, 2010.
- M. Norouzzadeh, **A. Bagheri**, M. Saraee, *Web Search Personalization: A Fuzzy Adaptive Approach*, in proceeding of 2nd IEEE International Conference on Computer Science and Information Technology. Beijing, China 2009.

- **A. Bagheri**, M. Saraee, *Text news classification with Naïve Bayes algorithm (In Persian)*, in proceeding of 2nd Iranian Data Mining Conference, Amirkabir University, Tehran, 2008.
- **A. Bagheri**, M. Palhang, M. Ahmadzadeh, *Defeating CAPTCHAs with Learning Algorithms (In Persian)*, in proceeding of 5<sup>th</sup> International ISC Conference on Information Security and Cryptology, Malek Ashtar University, Tehran, 2008.
- M. J. Maleki, **A. Bagheri**, *The effect of multi-word phrases on analysis of online reviews (In Persian)*, in proceeding of 3rd International Conference on Pattern Recognition & Image Analysis, Shahrekord University, Shahrekord, 2017.

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## Hobbies

Traveling, Playing & Watching Football, Watching Movies.

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## Personal Pages

Personal website: <https://bagheria.github.io/>

Scholar: <http://scholar.google.com/citations?user=QWhiQdgAAAAJ&hl=en&oi=ao>

LinkedIn: <http://www.linkedin.com/pub/ayoub-bagheri/3b/740/691>