# Saeedeh Shekarpour

## Curriculum Vitae

### Contact Information

 Web Entries: Homepage, Linkedin, Research Gate, Google Scholar, DBLP, Twitter

## Short Biography

Saeedeh Shekarpour received her PhD with honors in Germany at the University of Bonn. There, she collaborated with the AKSW research group — a world-class leading group in Semantic Web — in Leipzig University and EIS research group in Bonn University. There, she initiated and led SINA, a Semantic Search Engine over Interlinked Data. She addressed a number of challenging research topics related to question understanding, interpreting, rewriting, expansion, formal query construction and evaluation on federated Linked Data. Saeedeh also spent one year as a postdoctoral researcher in the EIS research group at the Bonn University and is currently a postdoctoral researcher with Prof. Amit Sheth at the Kno.e.sis center. She has outstanding publication record in WWW, AAAI, IEEE WI, IEEE ICSC, ESWC, ISWC, Journal of Web Semantics, etc.

## Area of Specialization

- Question Answering, Semantic Search, Information Retrieval.
- Semantic Web, Linked Open Data, Ontology Development.
- Information Extraction, Knowledge Graph Creation.
- Machine Learning, Statistical Methods (e.g. HMM)
- Natural Language Processing, Deep Learning (experiencing).

- Web Mining, Social Network Analysis.

#### Skills

- Semantic Technology: RDF, SPARQL, Ontology, Protege, Jena, OW-LAPI.
- Learning Technology: Weka, Clementine.
- Retrieval Technology: Lucene, Solr.
- Natural Language Processing: Stanford CoreNLP. WordNet.
- Programming Languages: JAVA, C#, C,C++, MATLAB.
- Database Management: Virtuoso, SQL-Server.
- Experiences: Latex, Linux, Office.

#### Honors

- 1998: Semifinalist of National Computer Olympiad, Iran.
- 2000: Ranked top 0.2% of the national entrance exam for Bachelor.
- 2005: Ranked top 3% of the national entrance exam for Master.
- 2011: PhD Grant from DAAD (German Academic Exchange Service).

## Projects

- 2016: CEVO: Event Ontology http://eventontology.org
- 2016: Hazard SEES: Social and Physical Sensing Enabled Decision Support
- 2016: Context-Aware Harassment Detection on Social Media
- 2015: WDAQUA: Question Answering on Web of Data
- 2010-2014: SINA: Semantic Interpretation of User Query for Question Answering on Linked Data

## Work Experience

 2016-present: Postdoctoral Researcher at the Knoesis Research Center<sup>1</sup>, Ohio Center of Excellence in Knowledge-enabled Computing, Dayton, USA.

<sup>1</sup>http://knoesis.wright.edu/

- 2015: Postdoctoral Researcher at EIS research group<sup>2</sup>, Institute for Applied Computer Science at Bonn University, Bonn, Germany.
- 2009-2010: Freelance C# developer, Tehran, Iran.
- 2009: Software Developer and Designer, Data Processing Company, Tehran, Iran.
- 2006: Teaching at Azad University, Jahrom, Fars, Iran.

#### Academic Education

- PhD in Computer Science from Bonn University.
  - Duration: 9/2010 12/2014.
  - Supervisor: Prof. Dr. Sören Auer
  - Places:
    - · EIS research group<sup>3</sup>, Institute for Applied Computer Science at Bonn University, Bonn, Germany.
    - · AKSW research group<sup>4</sup>, Institute of Computer Science(InfAI), Leipzig University, Leipzig, Germany.
  - Thesis:
    - · Title: Semantic Interpretation of User Queries for Question Answering on Interlinked Data.
    - · Grade: Magna Cum Laude
    - · Link: http://hss.ulb.uni-bonn.de/2015/3893/3893.htm
- M.Sc. in Computer Engineering(Software Engineering) from Shiraz University.
  - Duration: 9/2005 9/2008.
  - Supervisor: Prof. Dr. S. D. Katebi.
  - Places:
    - · Department of Computer Science and Engineering, School of Engineering<sup>5</sup>, Shiraz University, Shiraz, Iran.

<sup>&</sup>lt;sup>2</sup>http://eis.iai.uni-bonn.de/About.html

<sup>3</sup>http://eis.iai.uni-bonn.de/About.html

<sup>4</sup>http://aksw.org/About.html

<sup>5</sup>http://www.shirazu.ac.ir/en/index.php?page\_id=314&menu\_id=1&
menu\_item\_id=1

- · Department of Computer Science and Engineering<sup>6</sup>, Sharif University, Tehran, Iran.
- Thesis:
  - · Title: Trust Modeling for Semantic Web.
  - · Grade: Excellent (19.95 out of 20)
  - · Support: This thesis was supported financially by Iran Telecommunication Research Center (IRTC).
  - · Link: http://dl.acm.org/citation.cfm?id=1746749
- B.Sc. in Computer Engineering(Software Engineering) from Shahid Beheshti University.
  - Duration: 9/2000 9/2004.
  - *Place:* Department of Electronic and Computer Engineering<sup>7</sup>, Shahid Beheshti University, Tehran, Iran.

#### Selected Presentations and Talks

- QA Tutorial in Web Intelligence Summer School.
  - Venue: Saint-Etienne, France.
  - Date: September 2015.
- Presention of SINA in IBM Research Center (Watson project-DeepQA).
  - Venue: New York, USA.
  - Date: December 2013.
- World Wide Web Conference(WWW 2013).
  - Venue: Rio de Janeiro, Brazil.
  - Date: May 2013.
- Joint International Semantic Technology Conference(JIST2012).
  - Venue: Nara, Japan.
  - Date: December 2012.
- International Semantic Web Conference(ISWC 2011)
  - Venue: Bonn, Germany.
  - *Date:* October 2011.

<sup>6</sup>http://ce.sharif.edu/

<sup>&</sup>lt;sup>7</sup>http://en.sbu.ac.ir/Faculties/Electrical/Pages/default.aspx

- Web Intelligence Conference(WIIA 2011).
  - Venue: Lyon, France.
  - *Date:* August 2011.

#### Summer Schools and Conferences

- $\circ\,$  iBrigdes 2015 Conference, June 2015.
- International Semantic Web Conference (ISWC 2011/ISWC2014).
- Information Retrieval Summer School(ESSIR2011), Koblenz, Germany, August 2011.
- IndianSummer School on Linking Open Data (ISSLOD 2011), Leipzig, Germany, September 2011.
- Web Science Summer School, Leiden, Netherland, July 2012.

## Language

Persian: Native
English: Fluent
German: Familiar
Arabic: Familiar

## Community Service (Selected)

- Reviewer of
  - Journal of Web Semantics, Science, Services and Agents on the World Wide Web.
  - Semantic Web Journal.
  - Journal of Computational Intelligence.
  - Journal of Web Engineering.
  - Language Resource and Evaluation Conference(LREC).
  - International Semantic Web Conference(ISWC).
  - Association for the Advancement of Artificial Intelligence (AAAI).
  - Journal of Biomedical Semantics on Bio-Medical Information Retrieval (JBMS- Bio Retrieval).
  - International Conference on Web Intelligence, Mining and Semantics.

- Program Committee of
  - Clef Labs 2015.
  - Association for the Advancement of Artificial Intelligence (AAAI 2015).
  - IEEE Big Data 2016.
  - World Wide Web (WWW) 2017.

#### Publications

#### Journal Publications, peer-reviewed

- Saeedeh Shekarpour, Edgard Marx, Axel-Cyrille Ngonga Ngomo, and Sören Auer. "SINA: Semantic Interpretation of User Queries for Question Answering on Interlinked Data". In: Journal of Web Semantics Science, Services and Agents on the World Wide Web. 2014.
- Saeedeh Shekarpour, Sören Auer, Axel-Cyrille Ngonga Ngomo, Daniel Gerber, Sebastian Hellmann, and Claus Stadler. "Generating SPARQL queries Using Templates". In: Web Intelligence and Agent Systems Journal 11.3 (2013), pp. 283–295.
- Sebastian Tramp, Philipp Frischmuth, Timofey Ermilov, Saeedeh Shekarpour, and Sören Auer. "An architecture of a distributed semantic social network". In: Semantic Web 5.1 (2014), pp. 77–95.
- Edgard Marx, Tommaso Soru, Saeedeh Shekarpour, Sören Auer, Axel-Cyrille Ngonga Ngomo, and Karin Breitman. "Towards an Efficient RDF Dataset Slicing". In: Int. J. Semantic Computing 7.4 (2013), p. 455.
- Saeedeh Shekarpour and S. D. Katebi. "Modeling and evaluation of trust with an extension in semantic web". In: *Journal of Web Semantics Science*, Services and Agents on the World Wide Web 8.1 (2010), pp. 26–36.
- Saeedeh Shekarpour and S. D. Katebi. "A Trust Model For Semantic Web".
   In: International Journal of Simulation Systems, Science and Technology 10.2 (2010).

#### Conference Publications, peer-reviewed

Saeedeh Shekarpour, Edgards Marx, Sören Auer, and Amit Sheth. "RQUE-RY: Rewriting Natural Language Queries on Knowledge Graphs to Alleviate the Vocabulary Mismatch Problem". In: Proceedings of the Thirty-First AAAI Conference on Artificial Intelligence (AAAI-17), San Francisco, USA. 2017

- O Edgard Marx, Konrad Höffner, Saeedeh Shekarpour, Axel-Cyrille Ngonga Ngomo, Jens Lehmann, and Sören Auer. "Exploring Term Networks for Semantic Search over RDF Knowledge Graphs". In: Metadata and Semantics Research 10th International Conference, MTSR 2016, Göttingen, Germany, November 22-25, 2016, Proceedings. 2016, pp. 249–261
- Kuldeep Singh, Andreas Both, Dennis Diefenbach, Saeedeh Shekarpour, Didier Cherix, and Christoph Lange. "Qanary The Fast Track to Creating a Question Answering System with Linked Data Technology". In: The Semantic Web ESWC 2016 Satellite Events, Heraklion, Crete, Greece, May 29 June 2, 2016, Revised Selected Papers. 2016, pp. 183–188
- Kuldeep Singh, Andreas Both, Dennis Diefenbach, and Saeedeh Shekarpour. "Towards a Message-Driven Vocabulary for Promoting the Interoperability of Question Answering Systems". In: Tenth IEEE International Conference on Semantic Computing, ICSC 2016, Laguna Hills, CA, USA, February 4-6, 2016.
- Sidra Faisal, Kemele M. Endris, Saeedeh Shekarpour, Sören Auer, and Maria-Esther Vidal. "Co-evolution of RDF Datasets". In: Web Engineering
   16th International Conference, ICWE 2016, Lugano, Switzerland, June 6-9, 2016. Proceedings. 2016
- Andreas Both, Dennis Diefenbach, Kuldeep Singh, Saeedeh Shekarpour, Didier Cherix, and Christoph Lange. "Qanary A Methodology for Vocabulary-Driven Open Question Answering Systems". In: The Semantic Web. Latest Advances and New Domains 13th International Conference, ESWC 2016, Heraklion, Crete, Greece, May 29 June 2, 2016, Proceedings. 2016
- Kuldeep Singh, Andreas Both, Dennis Diefenbach, and Saeedeh Shekarpour. "Towards a Message-Driven Vocabulary for Promoting the Interoperability of Question Answering Systems". In: 2016 IEEE Seventh International Conference on Semantic Computing, CA, USA, 2016. 2016.
- Saeedeh Shekarpour, Axel-Cyrille Ngonga Ngomo, and Sören Auer. "Question Answering on Interlinked Data". In: 22nd International World Wide Web Conference, WWW '13, Rio de Janeiro, Brazil, May 13-17, 2013. 2013, pp. 1145–1156.
- Saeedeh Shekarpour, Konrad Höffner, Jens Lehmann, and Sören Auer.
   "Keyword Query Expansion on Linked Data Using Linguistic and Semantic Features". In: 2013 IEEE Seventh International Conference on Semantic Computing, Irvine, CA, USA, September 16-18, 2013. 2013, pp. 191–197.

- Edgard Marx, Saeedeh Shekarpour, Sören Auer, and Axel-Cyrille Ngonga Ngomo. "Large-scale RDF Dataset Slicing". In: 2013 IEEE Seventh International Conference on Semantic Computing, Irvine, CA, USA, September 16-18, 2013. 2013.
- Saeedeh Shekarpour, Axel-Cyrille Ngonga Ngomo, and Sören Auer. "Keyword-Driven Resource Disambiguation over RDF Knowledge Bases". In: Semantic Technology, Second Joint International Conference, JIST 2012, Nara, Japan, December 2-4, 2012. Proceedings. Springer, 2012, pp. 159–174.
- Saeedeh Shekarpour, Sören Auer, Axel-Cyrille Ngonga Ngomo, Daniel Gerber, Sebastian Hellmann, and Claus Stadler. "Keyword-Driven SPARQL Query Generation Leveraging Background Knowledge". In: Proceedings of the 2011 IEEE/WIC/ACM International Conference on Web Intelligence, WI 2011, Campus Scientifique de la Doua, Lyon, France, August 22-27, 2011. 2011, pp. 203–210.
- Saeedeh Shekarpour and S. D. Katebi. "A Trust Model Based on Statistical Propagation and Fuzzy Aggregation for Semantic Web". In: EMS 2008, Second UKSIM European Symposium on Computer Modeling and Simulation, Liverpool, England, UK, 8-10 September 2008. 2008, pp. 459–464.
- Saeedeh Shekarpour, Hassan Abolhasani, and S. D. Katebi. "Web Structure Mining Techniques". In: IDMC 2007, First Data Mining Conference, Amirkabir University, Tehran, Iran. 2007.

## Workshop and Doctoral Consution Publications

- O Saeedeh Shekarpour, Kemele M. Endris, Ashwini Jaya Kumar, Denis Lukovnikov, Kuldeep Singh, Harsh Thakkar, and Christoph Lange. "Question Answering on Linked Data: Challenges and Future Directions". In: Proceedings of the 25th International Conference on World Wide Web, WWW 2016, Montreal, Canada, April 11-15, 2016, Companion Volume. 2016
- Saeedeh Shekarpour, Denis Lukovnikov, Ashwini Jaya Kumar, Kemele Endris, Kuldeep Singh, Harsh Thakkar, and Christoph Lange. "Question Answering on Linked Data: Challenges and Future Directions". In: Proceedings of WWW2016 Companion. 2016.
- Saeedeh Shekarpour. "DC Proposal: Automatically Transforming Keyword Queries to SPARQL on Large-Scale Knowledge Bases". In: *The Seman-*

- tic Web ISWC 2011 10th International Semantic Web Conference, Bonn, Germany, October 23-27, 2011, Proceedings, Part II. Springer, 2011, pp. 357-364.
- Saeedeh Shekarpour, Axel-Cyrille Ngonga Ngomo, and Sören Auer. "Query Segmentation and Resource Disambiguation Leveraging Background Knowledge". In: Proceedings of WoLE Workshop. 2012.