Abolfazl Asudeh

2260 Hayward St, Bob and Betty Beyster Building, Room 4945 Ann Arbor, MI 48109

http://asudeh.github.io   (650) 270-0121   asudeh@umich.edu

RESIDENTIAL STATUS	U.S. Permanent Resident
RESEARCH INTERESTS	Responsible Data Science and Data Ethics, Big Data Management and Analysis, Database, Data Mining, Machine Learning, Algorithm Design, Ranking and Top-k query processing, Compact Maxima Representatives, Combinatorial Geometry, Web Databases.

ACADEMIC HISTORY

Postdoctoral Research Fellow, Division of Computer Science and Engineering,
University of Michigan Ann Arbor, *10/2017 - present*
Supervisor: Dr. H. V. Jagadish

Ph.D., Computer Science
University of Texas at Arlington, *01/2012 - 10/2017*
Advisor: Dr. Gautam Das
Dissertation Title: *Algorithms For Building Compact Representatives And Processing Ranking Queries*
GPA: 4.0/4.0

Master of Science, Computer Engineering-Software
Sharif University of Technology, Tehran, Iran, *09/2006 - 10/2008*
Advisor: Dr. Ali Movaghar
Thesis Title: *Analysis and Improvement of Hierarchical Routing Protocols in WSNs*

Bachelor of Science, Computer Engineering-Software
Sattari University, Tehran, Iran, *09/2002 - 08/2006*
Thesis Title: *Analysis, Design and Implementation of a Communication Website: integrated Mail, News, File-sharing, and Chat*

FULL PAPERS

1. Abolfazl Asudeh, Azade Nazi, Nan Zhang, Gautam Das, H. V. Jagadish. *RRR: Rank-Regret Representative*[1]. Accepted in **SIGMOD**'19: Proceedings of the 2019 International Conference on Management of Data, ACM, 2019.

2. Abolfazl Asudeh, H. V. Jagadish, Gerome Miklau, Julia Stoyanovich, *On Obtaining Stable Rankings.* in Proceedings of the VLDB Endowment (**PVLDB**), 12 (3): 237-250, 2019. DOI: 10.14778/3291264.3291269

3. Abolfazl Asudeh, H. V. Jagadish, Julia Stoyanovich, and Gautam Das. *Designing Fair Ranking Schemes.* Accepted in **SIGMOD**'19: Proceedings of the 2019 International Conference on Management of Data, ACM, 2019.

4. Abolfazl Asudeh, Zhongjun Jin, H. V. Jagadish. *Assessing and Remedying Coverage for a Given Dataset.* Accepted in **ICDE**, 2019.

5. Abolfazl Asudeh, Azade Nazi, Jees Augustine, Saravanan Thirumuruganathan, Nan Zhang, Gautam Das, Divesh Srivastava. *Leveraging Similarity Joins for Signal Reconstruction*[2]. in Proceedings of the VLDB Endowment (**PVLDB**), 11 (10):

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[1] Among the 3, out of 159, direct accepts in the first submission round.
[2] Invited to the **Best of VLDB**'18, the special issue of VLDB Journal. Awarded **PVLDB Reproducibility** 2018.

1276-1288, 2018. DOI: 10.14778/3231751.3231752

6. Sona Hasani, Saravanan Thirumuruganathan, <u>Abolfazl Asudeh</u>, Nick Koudas, Gautam Das. *Efficient Construction of Approximate Ad-Hoc ML models Through Materialization and Reuse.* in Proceedings of the VLDB Endowment (**PVLDB**), 2018.

7. <u>Abolfazl Asudeh</u>, Azade Nazi, Nan Zhang, and Gautam Das. *Efficient Computation of Regret-ratio Minimizing Set: A Compact Maxima Representative*, in **SIGMOD** '17: Proceedings of the 2017 International Conference on Management of Data, ACM, 2017.

8. <u>Abolfazl Asudeh</u>, Nan Zhang, and Gautam Das. *Query Reranking As A Service*, in Proceedings of the VLDB Endowment (**PVLDB**) 2016, Vol. 9 Issue 11. DOI: 10.14778/2904483.2904491.

9. <u>Abolfazl Asudeh</u>, Saravanan Thirumuruganathan, Nan Zhang, and Gautam Das. *Discovering the Skyline of Web Databases*, in Proceedings of the VLDB Endowment (**PVLDB**) 2016, Vol. 9 Issue 7. DOI: 10.14778/2983200.2983205.

10. Ning Yan, Sona Hasani, <u>Abolfazl Asudeh</u>, Chengkai Li, *Generating Preview Tables for Entity Graphs*[3], in **SIGMOD** '16: Proceedings of the 2016 International Conference on Management of Data, ACM, 2016.
DOI: 10.1145/2882903.2915221.

11. Md Farhadur Rahman, <u>Abolfazl Asudeh</u>, Nick Koudas, Gautam Das. *Efficient Computation of Subspace Skyline over Categorical Domains.* in ACM International Conference on Information and Knowledge Management (**CIKM**), ACM, 2017.

12. <u>Abolfazl Asudeh</u>, Gensheng Zhang, Naeemul Hassan, Chengkai Li, and Gergely V. Zruba, *Crowdsourcing Pareto-Optimal Object Finding by Pairwise Comparisons*, in Proceedings of the 24th ACM International Conference on Information and Knowledge Management (**CIKM**), ACM, 2015.
DOI: 10.1145/2806416.2806451.

13. <u>Abolfazl Asudeh</u>, Azade Nazi, Nick Koudas, Gautam Das. *Maximizing Gain Over Flexible Attributes in Peer to peer Marketplaces.* in Proceedings of the 23rd Pacific-Asia Conference on Knowledge Discovery and Data Mining (**PAKDD**), 2019.

14. <u>Abolfazl Asudeh</u>, Gergely V. Zruba, and Sajal K. Das, *A general model for MAC protocol selection in wireless sensor networks*, in **Ad Hoc Networks** Journal, volume 36 - part 1, pages 189 - 202, issn 1570-8705, Elsevier, 2016.
DOI: 10.1016/j.adhoc.2015.07.005.

DEMO/SHORT PAPERS

15. Yifan Guan, <u>Abolfazl Asudeh</u>, Pranav Mayuram, H. V. Jagadish, Julia Stoyanovich, Gerome Miklau, Gautam Das, *MithraRanking: A System for Responsible Ranking Design*, in **SIGMOD**, 2019.

16. Ke Yang, Julia Stoyanovich, <u>Abolfazl Asudeh</u>, Bill Howe, H. V. Jagadish, Gerome Miklau, *A Nutritional Label for Rankings*, in **SIGMOD**, pages 1773-1776, 2018.

17. Yeshwanth D. Gunasekaran, <u>Abolfazl Asudeh</u>, Sona Hasani, Nan Zhang, Ali Jaoua, Gautam Das, *QR2: A Third-party Query Reranking Service Over Web Databases*, in **ICDE**, pages 1653-1656, 2018.

18. Azade Nazi, <u>Abolfazl Asudeh</u>, Gautam Das, Nan Zhang, Ali Jaoua *Mobiface: Mobile App for Faceted Search over Hidden Web Databases.* Invited book chapter in Recent Trends in Computer Applications, **Springer Verlag**, 2018.

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[3]SIGMOD **Most Reproducible Paper** Award, 2017.

INTERNSHIP EXPERIENCE

Research Internship at **Microsoft Research** – DMX group, *Summer 2016*
- Finding Gold In A River: Web Service Discovery from Trillions of URLs.
- *Objective:* To classify the web services in the Bing's URL pool.

Software Engineering Internship at **Microsoft** – Commerce Platform branch, *Summer 2014*
- *Project:* Microsoft Pinpoint Telemetry.
- *Objective:* To create the infrastructures and architecture for the telemetry instrumentation of Microsoft Pinpoint service.

TEACHING EXPERIENCE

Teaching Assistant at **University of Texas at Arlington**, *Spring 2012 - Summer 2015*
- Data Analysis and Modelling Techniques, Fall 2012, Fall 2013, Fall 2014, Fall 2015.
- Algorithms & Data Structures, Summer 2015.
- Database 1, Summer 2012, Summer 2013.
- Introduction to Computers and Programming, Spring 2012, Summer 2013.
- Computer Literacy, Fall 2012, Spring 2013, Fall 2013.

Instructor at *Azad University, Payame Noor University, and University of Applied Science and Technology*, Iran, *2009-2011*
- I have taught the following courses for at least one semester: Database 1, Principles of Algorithms, Computer Networks, OO Programming(C++), System Analysis and Design, Assembly Language, Principles of Network Security, Principles of Programming, Advanced Programming 1, Internet Engineering, Basics of C# Language, and Web Programming.

PROFESSIONAL ACTIVITIES

- **PC Member:** IEEE BIGDATA 2019.
- **Session Chair:** SIGMOD 2018.
- **Reviewer:** ACM-TODS 2019, ACM-TDS 2019, SIGMOD 2018, TODS 2018, Trans. Big Data 2017, ACM-TOIS 2017, TKDE 2016, VLDB 2014, ICDE 2014, EDBT 2014, PAKDD 2014, ToN 2016, JPDC 2013.

AWARDS AND HONORS

- VLDB Journal Special Issue on **Best of VLDB 2018**, for "Leveraging Similarity Joins for Signal Reconstructions".
- John S. Schuchman **Outstanding PhD Student Award**, Computer Science and Engineering Department, University of Texas at Arlington, *April 2017*.
- **Most Reproducible Paper** Award, for "Generating Preview Tables for Entity Graphs", *SIGMOD 2017*.
- Lockheed Martin Graduate Engineering Fellowship, University of Texas at Arlington, *Aug. 2016*.
- Kelcy Warren Graduate Fellowship Award, University of Texas at Arlington, *Nov. 2015*.
- Best Example of Teamwork by a Student Organization Award, as the Vice President of UTA Persian Academic and Cultural Society, *2013 - 2014*.

TECHNICAL SKILLS

Experienced in: C, C++, C#, Python, JavaScript, and ASP; familiar with Java and Matlab.

REFERENCES

Available on request.