

Tarfah Alrashed

Research Interest

Human Computer Interaction, Information Retrieval, and Semantic Web.

Education

- 2016–Current **Massachusetts Institute of Technology**, Cambridge, MA, USA
PhD. Electrical Engineering and Computer Science
Advisor: David R. Karger
- 2016–2019 **Massachusetts Institute of Technology**, Cambridge, MA, USA
M.S. Electrical Engineering and Computer Science
Advisor: David R. Karger
- 2012–2014 **University of California San Diego**, San Diego, CA, USA
M.S. Computer Science
- 2004–2008 **King Saud University**, Riyadh, Saudi Arabia
B.S. Computer and Information Sciences

Experience

- May–Aug 2020 **Google Research**, Mountain View, CA, USA
Research Intern
Advisor: Natasha Noy
- June–Aug 2018 **Microsoft**, Bellevue, WA, USA
Research Intern
Advisor: Peter Bailey
- June–Aug 2017 **Microsoft Research**, Redmond, WA, USA
Research Intern
Advisor: Susan Dumais
- 2014–2016 **Massachusetts Institute of Technology**, Cambridge, MA, USA
Research Affiliate
- 2014–2016 **Center for Complex Engineering Systems, KACST**, Riyadh, Saudi Arabia
Research Associate
- 2012–2014 **University of California San Diego, CALIT2**, San Diego, CA, USA
Software Engineer Intern
Advisor: Ramesh Rao
- 2009–2011 **King Abdulaziz City for Science and Technology**, Riyadh, Saudi Arabia
Research Specialist

Publications

Conference Papers

- [p.11] **Tarfah Alrashed**, Lea Verou, David R. Karger. Shapir: Standardizing and Democratizing Access to Web APIs. *ACM Symposium on User Interface Software and Technology (UIST'21)*.
- [p.10] **Tarfah Alrashed**, Dimitris Paparas, Omar Benjelloun, Ying Sheng, Natasha Noy. Dataset or Not? A study on the veracity of semantic markup for dataset pages. *The Semantic Web Conference (ISWC'21)*. **[Best Student Paper Award]**
- [p.9] **Tarfah Alrashed**, Jumana Almahmoud, Amy X. Zhang, David R. Karger. ScrAPIr: Making Web Data APIs Accessible to End Users. *ACM Conference on Human Factors in Computing Systems (CHI'20)*.
- [p.8] **Tarfah Alrashed**, CJ Lee, Peter Bailey, Christopher Lin, Milad Shokouhi, Susan Dumais. Evaluating User Actions as a Proxy for Email Significance. *ACM Conference on The World Wide Web (WWW'19)*.
- [p.7] Lea Verou, **Tarfah Alrashed**, David R. Karger. Extending a Reactive Expression Language with Data Update Actions for End-User Application Authoring. *ACM Symposium on User Interface Software and Technology (UIST'18)*.
- [p.6] **Tarfah Alrashed**, Ahmed Hassan Awadallah, Susan Dumais. The lifetime of email messages: a large-scale analysis of email revisitation. *ACM Conference on Human Information Interaction & Retrieval (CHIIR'18)*.
- [p.5] **Tarfah Alrashed**, Jumana Almahmoud, Mohamad Alrashed, Sattam Alsubaiee, Mansour Alsaleh, Carlos S. Olascoaga. Social Communities in Urban Mobility Systems. *In International Conference on Social Computing and Social Media (SCSM'16)*.
- [p.4] Jumana Almahmoud, Almaha Almalki, **Tarfah Alrashed**, Areej Alwabil. Prototyping Complex Systems: A Diary Study Approach to Understand the Design Process. *In International Conference of Design, User Experience, Usability (DUXU'16)*.
- [p.3] **Tarfah Alrashed**, Almaha Almalki, Salma Aldawood, Tariq Alhindi, Ira Winder, Ariel Noyman, Anas Alfari, Areej Alwabil. An observational study of usability in collaborative tangible interfaces for complex planning systems. *In 6th International Conference on Applied Human Factors and Ergonomics and the Affiliated Conferences (AHFE'15)*.
- [p.2] **Tarfah Alrashed**, Almaha Almalki, Salma Aldawood, Anas Alfari, Areej Alwabil. Coding Schemes for Observational Studies of Usability in Collaborative Tangible User Interfaces. *In International Conference on Human-Computer Interaction (HCI'15)*.
- [p.1] Salma Aldawood, Faisal Aleissa, Almaha Almalki, **Tarfah Alrashed**, Tariq Alhindi, Riyadh Alnasser, Mohammad K. Hadhrawi, Anas Alfari, Areej Al-Wabi. Collaborative Tangible Interface (CoTI) for Complex Decision Support Systems. *In International Conference of Design, User Experience, and Usability (DUXU'15)*.

Doctoral Symposium

- [ds.1] **Tarfah Alrashed**. Systems to Democratize and Standardize Access to Web APIs. *ACM Symposium on User Interface Software and Technology (UIST'21)*.

Tools

Scrapir, a tool that allows anyone to query search web APIs and download its response data without programming. A user can describe a given API once, using our form-based interface, and once this is done, any other user can use our tool to query the API and download its data.

Tool: <https://scrapir.org>

GitHub: [tarfahlrashed/scrapir](https://github.com/tarfahlrashed/scrapir)

Shapir, a system that allows users to interact with data behind APIs as standard typed objects with read and write properties and methods. This enables programmers to access data without learning the details of each API, and allows them to use the same unchanged code for multiple APIs that offer semantically similar types of data. In combination with Mavo, an HTML templating language, we also empower non-programmers to create applications interacting with APIs data by writing only HTML, with no JavaScript programming required.

Tool: <https://shapir.org>

GitHub: [tarfahlrashed/shapir](https://github.com/tarfahlrashed/shapir)

Wikxhibit, a tool that empowers users to create presentations of Wikidata and other connected external data on the web without programming.

Tool: <https://wikxhibit.org>

GitHub: [tarfahlrashed/shapir](https://github.com/tarfahlrashed/shapir)

Selected Media Coverage

- May 2020 **Meet ScrAPIr, MIT's Swiss army-knife for non-coders to shake data out of APIs (It's useful for pro devs, too),**
The Register
- May 2020 **New From MIT/CSAIL: "Searching Websites the Way You Want"; Introducing scrAPIr,**
InfoDocket News
- May 2020 **Searching websites the way you want,**
MIT CSAIL News
- March 2013 **Smartphone app speeds up border crossings,**
Los Angeles Times
- March 2013 **Smartphone app speeds up border crossings,**
UC San Diego News Center
- Nov 2012 **New Mobile App Tells Users When to Cross the Border,**
The Guardian UC San Diego
- Nov 2012 **iPhone app lets border crossers determine best time to cross U.S. border,**
Homeland Security News Wire
- Nov 2012 **Students Build App To Determine The Best Time To Cross Border,**
KPBS
- Nov 2012 **Crowdsourcing Feature Lets iPhone Users Determine Best Time to Cross U.S. Border,**
UC San Diego News Center

Awards

- 2016 **King Abdulaziz City for Science and Technology**
Fellowship in support of doctoral research at Massachusetts Institute of Technology
- 2014 **Von Liebig Entrepreneurism Center Graduate Curriculum, UCSD**
Letter of Recognition

- 2013 **Mobile World Congress (MWC)**, Barcelona, Spain.
2nd Best Mobile App
- 2012 **King Abdulaziz City for Science and Technology**
Fellowship in support of Masters degree at University of California San Diego

Invited Talks

- Aug 2020 **Google Research**, Online
Dataset or not? Automatic Detection of Dataset Pages
- May 2020 **Cambridge CHI**, Online
ScrAPIr: Making Web Data APIs Accessible to End Users
- Aug 2018 **Microsoft Research**, Redmond, WA, USA
Evaluating User Actions as a Proxy for Email Significance
- Aug 2017 **Microsoft Research**, Redmond, WA, USA
The Lifetime of Email Messages: A Large-Scale Analysis of Email Revisitation
- Aug 2017 **Microsoft**, Bellevue, WA, USA
The Lifetime of Email Messages: A Large-Scale Analysis of Email Revisitation
- April 2015 **Prince Sultan University, Simulation and Modeling Course**, Riyadh, Saudi Arabia
City Schema - Collaborative Tangible Interface
- April 2015 **Alfaisal University Architectural Engineering Department**, Riyadh, Saudi Arabia
Urban Planning Tangible tools
- March 2015 **Arriyadh Development Authority**, Riyadh, Saudi Arabia
Collaborative Urban Planning Tangible Tools
- March 2013 **UC San Diego CALIT2**, San Diego, CA, USA
Democratizing Border Crossings: One App at a Time
- Oct 2012 **UC San Diego CALIT2**, San Diego, CA, USA
Border Wait Times Estimation Application

References

David R. Karger, Professor at Computer Science and Artificial Intelligence Laboratory, MIT
Susan Dumais, Director of Microsoft Research New England, New York City and Montreal
Natasha Noy, Research Scientist at Google Research
Dimitris Paparas, Software Engineer at Google Research