

Tarique Siddiqui

201 N Goodwin Avenue, Urbana, IL 61802, USA
tsiddiq2@illinois.edu • +1 (217) 402-4017 • <http://tsiddiq2.web.engr.illinois.edu/>

EDUCATION

- Ph.D. in Computer Science Aug 2016 —
Database And Information Systems Group
University of Illinois, Urbana Champaign (UIUC)
Advisor: Aditya Parameswaran
- MS in Computer Science Aug 2014 – Jul 2016
Database And Information Systems Group
University of Illinois, Urbana Champaign (UIUC)
Advisors: Aditya Parameswaran, Jiawei Han
Siebel Scholar (Among 33 CS graduate students awarded worldwide)
- B-Tech, Computer Engineering Jul 2007 – Jun 2011
National Institute of Technology
Kurukshetra, India
GPA: 9.70/10.00
Academic Excellence Award 2009, 2010, 2011

INTERESTS

Systems and Algorithms for Interactive Exploratory Analytics, Query Languages, Visualization, Approximate Query Processing, Data Mining, Time-series, Information Extraction

PUBLICATIONS

- **Tarique Siddiqui**, A Kim, J Lee, K Karahalios, A Parameswaran. Effortless data exploration with zenvisage: an expressive and interactive visual analytics system. *43rd International Conference on Very Large Data Bases (VLDB), Munich, Germany, September 2017*
- **Tarique Siddiqui**, John Lee, Albert Kim, Edward Xue, Xiaofu Yu, Sean Zou, Lijin Guo, Changfeng Liu, Chaoran Wang, Karrie Karahalios, Aditya Parameswaran. Fast-forwarding to Desired Visualizations with Zenvisage. *CIDR '17: Conf. on Innovative Data Management (CIDR), Chaminade, USA, 2017*
- **Tarique Siddiqui**, X. Ren, Aditya Parameswaran, and Jiawei Han. FacetGist: Collective Extraction of Document Facets in Large Technical Corpora. *CIKM '16: 25th Int'l Conf. on Information and Knowledge Management, Indianapolis, USA, 2016*.
- M. Vartak, S. Huang, **Tarique Siddiqui**, S. Madden, and A. Parameswaran. Towards Visualization Recommendation Systems, SIGMOD Record, December 2016.
- A Kim, L Xu, **Tarique Siddiqui**, S Huang, S Madden, A Parameswaran. Speedy browsing and sampling with needletail. arXiv preprint arXiv:1611.04705 [Under Submission]
- Doris Lee, John Lee, **Tarique Siddiqui**, Jaewoo Kim, Karrie Karahalios, Aditya Parameswaran. Accelerating Scientific Data Exploration via Visual Query Systems. arXiv preprint arXiv:1710.00763 [Under Submission]

INDUSTRIAL EXPERIENCE

- Research Intern, Tableau Research May 2016 – Jul 2016
Interactive Data analysis
- Technology Analyst, Goldman Sachs Jun 2011 – Jul 2014
Complex Event Processing, Telemetry, Systems and Networking
- Summer Intern, General Electric Research May 2010 – Aug 2010
Interactive Data analysis

SELECTED PROJECTS

- *Zenvisage: Accelerating Exploratory Data Analysis*
Zenvisage is an interactive visual data exploration system that can automatically identify and recommend interesting trends, patterns, and insights in datasets. Zenvisage supports a general purpose visual exploration language, ZQL ("zee-quel") for specifying the desired visual patterns; interactive sketching interface, and a novel graph-based query optimizer that leverages a suite of optimizations tailored to the goal of processing collections of visualizations in certain pre-defined ways.
- *Fabric: Large Scale Complex Event Processing System*
Fabric is an agent-based distributed complex event processing framework for real-time event processing, discovering dependencies and correlations, telemetry, and predictive analytics. I contributed to research and development of Fabric while working at Goldman Sachs.
- *Needletail: Speedy Browsing and Sampling of Relational Data*
Needletail lets analysts browse a small sample of the query results on large datasets as quickly as possible, independent of the overall size of the result set. It uses a lightweight in-memory indexing structure, and a set of efficient algorithms (with desirable theoretical guarantees) to quickly locate promising blocks, trading off locality and density.
- *FacetGist: Collective Extraction of Document Facets in Large Technical Corpora*
Given a large collection of documents, FacetGist can automatically label each document with a set of concepts on different key aspects such as techniques, applications, metrics, datasets. It uses a novel graph-based framework that considers both local sentence-level features, such as string suffix and surrounding relation phrase, as well as global context information, including document topics and section structures, to model the aspect of a concept mentioned in a document.

AWARDS & SCHOLARSHIPS

- **Siebel Scholar**, Class of 2016, awarded annually for academic excellence and demonstrated leadership to 90 students including 33 Computer Science students worldwide.
- Academic Excellence Award, NIT Kurukshetra for three consecutive years 2009, 2010, 2011.
- National Talent Search Scholar Award, India, 2005
- IDB Scholarship for undergraduate studies.
- First in state for the Senior Secondary Exam, 2007; ranked in top .1% merit list for Computer science and Physics in India.
- AFMI Gold Medal for excellent performance in Senior Secondary Exam, 2007

REFERENCES

- Aditya Parameswaran
Assistant Professor
Computer Science, UIUC
- Jiawei Han
Professor
Computer Science, UIUC
- Karrie G. Karahalios
Associate Professor
Computer Science, UIUC