

ARIJIT KHAN

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Research Interests:

Graph Mining and Querying, Data Mining, Machine Learning, Algorithms, Social Networks.

Education:

UC Santa Barbara • PhD in Computer Science

Start: Fall 2008 • **Expected:** March 2013 • CGPA: 3.96/4

Dissertation: "Answering Queries via Subgraph Matching in Large-Scale, Semi-Structured and Heterogeneous Networks".

Research Advisor: Prof. Xifeng Yan, Dept. of Computer Science, UC Santa Barbara.

Jadavpur University, Kolkata, INDIA • Bachelor of Computer Science and Engineering (First Class, Honors) • 2004-2008 • CGPA: 9.39/10

Selected Publications:

Conference Publications.

- 1) Shengqi Yang, Xifeng Yan, Bo Zong, and **Arijit Khan**, "Towards Effective Partition Management for Large Graphs", accepted in International Conference on Management of Data 2012 (SIGMOD 2012), [Acceptance Rate: 16.6%].
- 2) **Arijit Khan**, Nan Li, Xifeng Yan, Ziyu Guan, Supriyo Chakraborty, and Shu Tao, "Neighborhood Based Fast Graph Search in Large Networks", in Proc. of *International Conference on Management of Data 2011 (SIGMOD 2011)*, pp. 901-912, [Acceptance Rate: 23%].
- 3) Charu Aggarwal, **Arijit Khan**, and Xifeng Yan, "On Flow Authority Discovery in Social Networks", in Proc. of *SIAM Conference of Data Mining 2011 (SDM 2011)*, pp. 522-533, [Acceptance Rate: 25.1%].
- 4) **Arijit Khan**, Xifeng Yan, and Kun-Lung Wu, "Towards Proximity Pattern Mining in Large Graphs", in Proc. of the *International Conference on Management of Data 2010 (SIGMOD 2010)*, pp. 867-878, [Acceptance Rate: 20.8%].
- 5) Arpan Roy, Adway Mitra, **Arijit Khan**, Mita Nasipuri, and Debashis Saha, "LSDC a lossless approach to lifetime maximization in wireless sensor networks" in Proc. of *Sensors Applications Symposium, 2008 (SAS 2008)*, IEEE, pp. 166 -171.

Tutorial Publications.

- 1) **Arijit Khan**, Yinghui Wu, and Xifeng Yan, "Emerging Graph Queries In Linked Data", in Seminar of *International Conference in Data Engineering 2012 (ICDE 2012)*.

Workshop Publications.

- 1) **Arijit Khan**, Vishwakarma Singh, and Jian Wu, "Find Skyline Nodes in Large Networks", **invited paper** in the *3rd International Workshop on Graph Data Management: Techniques and Applications 2012 (GDM 2012)*.

Workshop Publications (continued).

- 2) **Arijit Khan** , Xifeng Yan, Shu Tao, and Nikos Anerousis, "Workload Characterization and Prediction in the Cloud: A Multiple Time Series Approach", in *CloudMan 2012* .
 - 3) **Arijit Khan** and Lawrence Jenkins, "**Undersea wireless sensor network for ocean pollution prevention**", in Proc. of *Communication Systems Software and Middleware and Workshops, (COMSWARE 2008)*, IEEE, pp. 2-8.
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Selected Talks:

- 1) "Emerging Graph Queries in Linked Data", **Tutorial** in the *International Conference in Data Engineering 2012, (ICDE 2012)*.
 - 2) "Novel Graph Queries in Large Networks", **Invited Talk** at Computer Science , IIT Guwahati, India (December 2011).
 - 3) "Neighborhood Based Fast Graph Search in Large Networks", in the *International Conference on Management of Data 2011 (SIGMOD 2011)*.
 - 4) "On Flow Authority Discovery in Social Networks", in *SIAM Conference of Data Mining 2011 (SDM 2011)*.
 - 5) "Towards Proximity Pattern Mining in Large Graphs", in the *International Conference on Management of Data 2010 (SIGMOD 2010)*.
 - 6) "Workload Characterization and Prediction in the Cloud: A Multiple Time Series Approach", at IBM T. J. Watson Research Center in Hawthorne, New York (September 2010).
 - 7) "Undersea wireless sensor network protocols for ocean pollution prevention", at Electrical Engineering, Indian Institute of Science, Bangalore, India (September 2007).
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Honors and Awards:

- 1) Recipient of **IBM Ph.D. Fellowship** 2012-13.
 - 2) Recipient of **NSF ICDE** 2012 Scholarship.
 - 3) Recipient of **SDM Student Travel Award** 2011.
 - 4) Recipient of the **P1 fellowship** award for the Spring Quarter in 2009-10 from the Department of Computer Science, University of California, Santa Barbara.
 - 5) Recipient of the **CITRIX GO-TO fellowship** award for the academic year 2008-2009 from the Department of Computer Science, University of California, Santa Barbara.
 - 6) **Gold Medalist** from the Department of Computer Science and Engineering, Jadavpur University in 2008.
 - 7) Awarded **Gold Medal** by **Tata Consultancy Services Ltd.** for being the best student of the Department of Computer Science & Engineering, Jadavpur University, for 2008-2009.
 - 8) Recipient of the Award for **Academic Excellence by a Student, 2004** by Telegraph School Awards for Excellence.
 - 9) Recipient of the **Agarwal Rashtriya Puraskar (Award)**, 2002 & 2004 presented by Shri Viren J. Shah, then Governor of West Bengal, India.
 - 10) Recipient of the **National Merit Scholarship** Award (India) from 2004 - 2008.
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Work Experience:

- 1) **IBM T. J. Watson Research Center in Hawthorne, New York** (Summer 2010)
Research Intern • Mentor: Dr. Shu Tao • Manager: Dr. Nikos Anerousis
Workload characterization and prediction across different servers in the cloud using a multiple time series approach.
 - 2) **UC Santa Barbara, Department of Computer Science** (Fall 2008 - present)
Graduate Student Researcher and Teaching Assistant
 - 3) **UC Santa Barbara, Center for Nanotechnology in Society** (Summer 2011)
INSET Research Mentor
Mentored an undergraduate student in a research project.
 - 4) **Indian Institute of Science, Bangalore - Department of Electrical Engineering** (Summer 2007)
IASc-INSA-NASI Summer Research Fellow • Guide: Prof. Lawrence Jenkins
Undersea wireless sensor network protocols for ocean pollution prevention.
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Professional Activities:

- 1) Student member of the Information Network Academic Research Center (INARC), UCSB.
 - 2) Student member of the ACM and IEEE.
 - 3) Member in General Committee and Best Paper Committee in Graduate Student Workshop, Computer Science, University of California Santa Barbara, 2011 and 2012.
 - 4) External reviewer for IEEE Transactions on Neural Networks, 2011 ACM SIGMOD Conference, 2011 SIAM International Conference on Data Mining, 2010 ACM SIGKDD Conference, 2010 SIAM International Conference on Data Mining, 2010 ACM SIGMOD Conference, 2010 IEEE ICDM Conference, 2009 IEEE ICDM Conference, 2009 ICDE Conference.
 - 5) Conferences Attended: SIGMOD 2010, 2011, SDM 2011, and KDD 2011.
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Technical Skills:

- 1) Programming Languages: C, C++, LEDA, JAVA, MATLAB, PERL, PYTHON and HTML
 - 2) Distributed Programming: silk++, MPI
 - 3) Logic Programming: PROLOG
 - 4) Database Language: SQL
 - 5) Assembly Language: x86
 - 6) Network Simulator: NS2, QUALNET, Planet Lab
 - 7) HTML Parser: Beautiful Soup (used for Web Crawling)
 - 8) Proficient in both UNIX and Windows platforms
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References:

Xifeng Yan
Assistant Professor
Venkatesh Narayanamurti Chair
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Charu Aggarwal
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IBM T. J. Watson Research Center
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