

# Dr. Shafqat Ali Shad

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## (RESEARCH INTERESTS)

Data Mining and Knowledge Discovery, Business Intelligence, Big Data Analytics, Mobility Mining, ERP, ICT and E-governance.

## (EDUCATION)

- 2010-2013 Doctor of Engineering (PhD) Computer Science and Technology**  
Laboratory of Semantic Computing and Data Mining,  
University of Science and Technology of China, Hefei, Anhui, P.R. China  
<http://dm.ustc.edu.cn>
- 2002-2004 Master of Computer Science (Gold Medalist)**  
CGPA(3.875/4) Percentage:92%  
COMSATS Institute of Information Technology, Pakistan
- 1999-2001 Bachelor of Arts**  
The University of Punjab, Lahore, Pakistan
- 1997-1999 HSSC**  
FBISE, Pakistan
- 1995-1997 SSC**  
FBISE, Pakistan

## (SUMMARY)

I have been involved in research and development since past 10 years. Currently I am working as Assistant professor (Computer Science) at COMSATS, Wah Cantt, Pakistan under Tenure Track System and Visiting Assistant Professor at Maharishi University of Management, USA. Further I am Higher Education Commission of Pakistan's approved Ph.D supervisor, where my main job responsibilities include Research and Development, Graduate and Undergraduate student's project supervision, Graduate & Undergraduate level course lecture delivery, Curriculum design, Funding project proposal preparation, Organization of seminars and class counseling. Before joining COMSTAS I worked as Doctoral Research student at Laboratory of Semantic Computing and Data Mining, University of Science and Technology of China under CSC grant where I worked on Nokia Research Center Asia Mobility mining project and SAMSUNG labs, Nanjing, China Mobility based recommender system project and accomplished my Ph.D. Before pursuing my Ph.D I worked within area of ICT policy and development projects in capacity of Deputy Director ICT at Planning Commission of Pakistan and National ICT Consultant at Asian Development Bank. I have been part of Pakistan mega ICT projects of above 40 Million PKR and contributed into Annual Plans, Five Year Plans, Vision 2030, and Pakistan Millennium Development Goals of Pakistan.

## (PROFESSIONAL EXPERIENCE)

- 01: Assistant Professor (Tenure Track System)/ HEC Approved PhD supervisor**  
Organization COMSATS Institute of Information Technology, Pakistan  
Period 2013-Aug to Date  
[http://www.ciitwah.edu.pk/home2/department/PrfCs.asp?em\\_id=492&dep\\_id=1](http://www.ciitwah.edu.pk/home2/department/PrfCs.asp?em_id=492&dep_id=1)  
<http://sc.hec.gov.pk/aphds/submit.asp?supid=6981>  
<http://home.ustc.edu.cn/~shafqat/>
- 02: Visiting Assistant Professor**

Organization Maharishi University of Management, Fairfield, IOWA, USA

Period 2014-July to 2014-Aug

Delivered one month graduate level course on Data Mining.

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**02: PhD candidate/ Doctoral Research Associate**

Organization University of Science and Technology of China

Period 2010-Sept to 2013-July

<http://home.ustc.edu.cn/~shafqat/>

**03: National IT Consultant/Software Specialist**

Organization Asian Development Bank, Lahore, Pakistan

Period 2010-April to 2010-June

**04: ERP Manager/ System Coordinator**

Organization Cherat Papersack Pvt Ltd, Ghulam Farooq Group, Pakistan

Period: 2009-June to 2010-March

**05: Deputy Director-IT/Chief System Analyst**

Organization Planning and Development Division Islamabad, Pakistan

Period 2005-03 to 2009-05 (Worked as Assistant Director till 2007-01-30)

**06: Assistant Manager**

Organization Pakistan Ordnance Factories, Wah Cantt, Pakistan

Period 2004-March to 2005-March

## PUBLICATIONS

Journal publications:

- S. A. Shad and E. Chen, Un-supervised user mining in GSM sensor networks, The Scientific world journal-Computer Science Chapter. (SCIE Indexed) <http://dx.doi.org/10.1155/2013/589610>
- S. A. Shad and E. Chen, Precise Location Acquisition of Mobility Data Using Cell-id, International Journal of Computer Science Issues, vol. 9, no. 3, pp. 222-231, 2012. (EI Accession#20122915265654, arXiv preprint arXiv:1206.6099)
- S. A. Shad and E. Chen, Spatial Outlier Detection from GSM Mobility Data, International Journal of Advanced Research in Computer Science, vol. 3, no. 3, pp. 68-74, Jun. 2012. (arXiv preprint arXiv:1206.5587)
- S. A. Shad, E. Chen, and T. Bao, Cell Oscillation Resolution in Mobility Profile Building, International Journal of Computer Science Issues, vol. 9, no. 3, pp. 205-213, 2012. (EI Accession#20122915265652, arXiv preprint arXiv:1206.5795)
- S. A. Shad, E. Chen, and F. A. F. Malik, Enterprise Resource Planning - Real blessing or a Blessing in Disguise?: An Exploration of the Contextual Factors in Public Sector, Interdisciplinary Journal of Contemporary Research in Business, vol. 2, no. 10, pp. 294-307, 2011.(arXiv preprint arXiv:1207.2860)
- M. W. Nisar, E. U. Munir, and S. A. Shad, Usage and Impact of ICT in Education Sector?: A Study of Pakistan, Australian Journal of Basic and Applied Sciences, vol. 5, no. 12, pp. 578-583, 2011. (SCOPUS & ISI Indexed, arXiv preprint arXiv:1206.5132)
- S. A. Shad, E. Chen, and F. A. F. Malik, Performance Enhancement Factors of ERP Projects in a Telecom Public Sector Organization of Pakistan?: An Exploratory Study, Interdisciplinary Journal of Contemporary Research in Business, vol. 2, no. 11, pp. 95-109, 2011. (arXiv preprint arXiv:1207.2862).
- S.A.Shad, M.W.Nisar, R.A.Bhatti, K.I.Qureshi, "Rethinking to Mobile Users and Communications Technology Using Data Mining", Science International (ISSN 1013-5316), Vol. 26 (2), 2014, 577-581. ISI Indexed
- F.Ullah, K.I.Qureshi, A.Khan, K.H.Khan, S.A.Shad, "Effect of Four Wave Mixing on AP-DCDM-WDM Fiber Optic System at Different Channel Spacing", Science International

- (ISSN 1013-5316), Vol. 26 (2), 2014, 589-593. ISI Indexed
- F.S.Butt, R.Mahum, A.Zia, S.Nawab, S.A.Shad, “Barriers in Implementation of Electronic Medical Records in Pakistan”, Science International (ISSN 1013-5316), Vol. 26 (4), 2014, 1807-1812. ISI Indexed
  - S.Shaukat, R.A.Bhatti, K.I.Qureshi, S.A.Shad, “Ant Colony Optimization: A review and Comparison”, Research Journal of Applied Sciences, Engineering and Technology (ISSN: 2040-7459), Vol. 8 (3), 2014, 435-438. ISI Indexed
  - M.F.Umar, E.U.Munir, S.A.Shad, M.W.Nisar, “Enhancement of Selection, Bubble and Insertion sorting Algorithm”, Research Journal of Applied Sciences, Engineering and Technology (ISSN: 2040-7459), Vol. 8 (2), 2014, 263-271. ISI Indexed
  - N.A.Khattak, D.Chadwick, R.A.Bhatti, S.A.Shad, F.S.Butt, “Assessment of Anti Spyware Tools for Signature and Behavior base Techniques”, Science International (ISSN 1013-5316), Vol. 26 (5), 2014, 2071-2075. ISI Indexed
  - F.S.Butt, M.Umer, M.D.A.Asif, N.A.Khattak, S.A.Shad, “Motivation of Employees in Software Development Process: A Case of Pakistan”, Science International (ISSN 1013-5316), Vol. 26 (5), 2014, 2523-2528. ISI Indexed
  - K Ayub, Z.Rehman, M.W.Nisar, F.S.Butt, S.A.Shad, “Frame Relay and ATM Networks: A Comparative Analysis”, Science International (ISSN 1013-5316), Vol. 27 (1), 2015, 2577-2583. ISI Indexed
  - R.A.Bhatti, K.I.Qureshi, T.Umar, K.H.Khan, S.A.Shad, “A 3-Layer Modular Approach for Strategic Business Information Security System”, Research Journal of Applied Sciences, Engineering and Technology (Accepted) ISI Indexed
  - R.A.Bhatti, I. Shafi, N.A.Khattak, F.S.Butt, S.A.Shad, M.W.Nisar, “Comparative Study of Road Fetaures and Queue Detection Algorithms for Driving Systems”, Science International (ISSN 1013-5316), Accepted . ISI Indexed
  - M.W.Nisar, E.U.Munir, K.Ayub, S.A.Shad, “Effectiveness of ICT (Information Communication Technology) in context of student teacher interaction in education”, Journal of Internet Technology (ISSN ), IF:0.481, Submitted
  - M.Khan, M.W.Nisar, E.U.Munir, F.S.Butt, S.A.Shad, “A CMMI Compliant Requirement Development Life Cycle”, Arabian Journal of Science and Engineering (ISSN1319-8025 ) , IF:0.367, Submitted
  - M.Masood, S.Nawab, E.U.Munir, M.W..Nisar, T.L.Yang, S.A.Shad, “Advertiser’s Perception of Internet Marketing for Small and Medium Enterprises in Pakistan”, Frontiers of Computer Science (ISSN 2095-2228 ) , IF:0.405, Submitted

#### Books:

- S.A. Shad, E. Chen "Mobile User Profile and Trajectory Mining" (2013) LAMBERT Academic Publishing Vol:ISBN# 978-3-659-50312-2
- Hawbani,X. Wang, H. Miao, S.A. Shad “Object Oriented Controls Design for Web and Desktop Applications” (2013) LAMBERT Academic Publishing Vol:ISBN# 978-3-659-55167-3
- Yu Yang, Enhong Chen, Qi Liu, Biao Xiang, Tong Xu, S.A. Shad "On Approximation of Real-World Influence Spread" (2012) Machine Learning and Knowledge Discovery in Databases, Lecture Notes in Computer Science (Springer Series) Vol:7524 pp:548-564

#### Conference Publications:

- Y. Yang, E. Chen, Q. Liu, B. Xiang, and S. A. Shad, On Approximation of Real-World Influence Spread, ECML-PKDD, 2012. (EI Accession# 20124015502630)

### RESEARCH PROJECTS/ CONFERENCES/SEMINARS

#### Projects:

**Project Bone Age assessment based Medical Diagnostics (E-Health framework for remote areas). Submitted to COMSATS for funding**

Description The proposed system will be electronic health system mainly focused to provide health services in the remote areas of developing country. In the country like Pakistan where physician: patient ratio is as low as 1:1254 according to the report by World Health Organization, such E-health system can serve best. The primary functionality of the system will be online health service through use of X-ray imaging with full fledge Computer Assisted Diagnosis (CAD) for second opinion and study for physician. The system will capture the demographic information of the subject along with his left hand image through web module of the system, than the Computer Assisted Diagnosis (CAD) module will develop the expert results based on defined digital hand atlas, feature extraction, fuzzy logic, than this information will be used by the physician for diagnosis, treatment and prescription. It is pertinent to mention that the proposed system is initially for children only.

**Project Collection of Contextual Mobility Data for Mobility Mining Lab submitted to Higher Education Commission, Pakistan for startup research grant.**

Description This project is related to establishment of Mobility Mining lab at COMSATS, Wah Cantt, initially a proposal is submitted for the development of Software package to collect the rich contextual data through mobile users, the ultimate target of this project is to develop complete recommender package for Route prediction, Travel package, Early warning system, Social community finding, and Surveillance system.

**Project Mobility Mining, A collaborative work between Nokia Research Center Asia, Beijing, China and USTC, China.**

Description This project was part of NRC and USTC to develop a recommender system using the rich contextual mobility data.

**Project Mobility Based Recommender System, A collaborative work between SAMSUNG Labs, Nanjing, China and USTC, China.**

Description This project is related to development of recommender system based on user trends over tracked through user preferences and interaction.

**Project Ph.D thesis under CSC grant “Spatiotemporal Trend Mining for User Similarity Measure using the GSM Information”, supervised by Prof. Dr. Enhong Chen.**

Description I completed my Ph.D dissertation under the supervision of well renowned scholar in Data mining Prof.Dr.Enhong Chen, in this project I carried out complete analysis of GSM based mobility data where addressed issues were Resolution of spatial outliers, Cell oscillation resolution, Extraction of stay points and User similarity mining. GSM based information si most raw form of information it was very challenging to deal with such data as previously related work is mostly done using the GPS concise data. A complete framework was proposed under this work for mobility based recommender systems.

**Seminar/Conference/Forums:**

**Pak Chian IT Forum, Shenzhen, P.R.China, 2014**

**Role: Collaboration coordinator**

Description Pak China IT Forum was organized from 14<sup>th</sup> to 17<sup>th</sup> December, 2014 at Shenzhen, P.R. China for the very first time to take the bilateral relations between two friendly countries further through regional collaboration in Information Technology. Group of Pakistan government officials included CEO's from Pvt Companies, PSEB and CIIT. This forum was organized mainly by Consulate General of Pakistan, Guangzhou, P.R. China where Shenzhen local government took part with hundreds of Software IT Companies of China including Tencent, Hawaii, ZTE, Kingdom Software. At the concluding ceremony 25 MOUs were signed between GoP and P.R.China Shenzhen Government.

**Frontiers of Information Technology, 2013 (International conference)**

**Role: Audience Organizer, Collaboration coordinator**

<http://fit.edu.pk/>

Description 11th International Conference on Frontiers of Information Technology (FIT) was

organized on Dec 16 - 18, 2013 at Islamabad Pakistan. This was the eleventh consecutive year that COMSATS Institute of Information Technology, CIIT, organized this event. It was technically sponsored by IEEE Islamabad Chapter, IEEE Industrial Electronics Society, and IEEE Computer Society Technical Committee on Scalable Computing.

The main objective of this conference was to provide a platform for engineers, academicians, scientists, industrial professionals and researchers from over the world to present the result of their research activities in the field of Information technology and Technological innovation. FIT 2013 provided opportunities for the delegates to share the knowledge, ideas, innovations and problem solving techniques.

### **VisioSpark, 2013 (National level software competition)**

**Role: Technical project evaluation, Seminar organization, Chief guest protocol**

<http://ciitwah.edu.pk/visiospark13/>

Description: VisioSpark has been a tradition of CIIT, Wah since 2003. The scope of this event has been increasing since it took place for the very first time. This is the Ninth time that the event is being held at national level, where students from Pakistan's various IT Universities / Institutes will participate. VisioSpark 2013 is scheduled on October 26, 2013. It would be a great opportunity for the students and IT professionals, to display their talent and to get abreast with latest developments in IT. Major activities of VisioSpark 2013 are:

- Software Competition
- Quiz Competition
- On Spot Programming Competition
- Poster Competition
- Gaming Competition

### **Vice-Chancellor forum of Islamic World , 2013 (International Seminar)**

**Role: Collaboration negotiator, Program management**

<http://vcforum.org.pk/>

Description: The COMSATS Institute of Information Technology, Pakistan in collaboration with the Islamic Educational, Scientific and Cultural Organization (ISESCO); Higher Education Commission, Pakistan (HEC); Ministry of Science and Technology, Government of Pakistan (MoST); and the Federation of the Universities of the Islamic World (FUIW) organized a 2 - Day Vice Chancellors' Forum on 'Universities in the Islamic World: Challenges of Internationalization'. The Forum was held on September 23 - 24, 2013. Venue of the Forum was Serena Hotel, Islamabad, Pakistan.

### **Pak China Business Forum (ICT Chapter)**

**Role: Program management**

<http://ww3.comsats.edu.pk/pcb2014/>

Description: The objectives set forth for the Pak-China Business Forum are as under:

- [1] To provide a platform for interaction between Chinese and Pakistani entrepreneurs and businessmen.
- [2] To explore possibilities of attracting FDI from China.
- [3] To provide business opportunities for Pakistani entrepreneurs.

It is expected that the Forum would also provide opportunity for commercialization of products and processes developed at CIIT and other participating organizations.

### **AWARDS RECEIVED**

- Chinese Government Scholarship for PhD, China, University of Science and Technology of China - September 2010.

- ARCISYPRS PhD scholarship for 2008 at Griffith Graduate Research School, Griffith University - March 2008
- I got the Chancellor gold medal in MCS with CGPA of 3.875 out of 4 in all COMSATS campuses.
- IMCNE Secretariat Grant for Master program, Scuola Superiore Sant Anna, Italy - August, 2008
- I got the distinction in MCS third semester with GPA of 4 out of 4.

#### PROFESSIONAL QUALIFICATION

- Community Information Services Course (Asian Development Bank Institute Japan)
- Public Information Services Course (Awarded by Asian Development Bank Institute Japan)
- E-Business strategies Course (Awarded by Asian Development Bank Institute Japan)
- E-Learning Policies Course (Awarded by Asian Development Bank Institute Japan)
- Corporate training on Documentation and Implementation of ISO 9001 (National Productivity Organization, Ministry of Industries and Special Initiatives, Pakistan)
- SAP Production Planning module and ABAP training from IBM Pakistan at GFG Group.
- Project Management Training (Earned 35 PDU's from global rep of Project Management Institute Intl i.e. Syscomp Int.
- Oracle 10g Certified Professional
- Juniper Networks Certified Internet Specialist (Enterprise Routing) (JNCIS-ER)

#### COMPUTER SKILLS

Experience of working in different tools of Computer fields like:

- Programming Languages: Matlab, Python, Graphviz, ABAP, VC++, C Sharp(.NET framework), C++, Java, C, Prolog, Lisp, VB, Vikings
- Database(Management Systems/Tools): Oracle, MS Access, MS SQL, PL/SQL, Developer 2000, Oracle 10g
- Web development : HTML, MS FrontPage, ASP, JavaScript, PHP, VB Script, IIS, PWS
- Software Engineering : MS Visio, Erwin, MS Project, Rational Rose
- Reporting Tools: Crystal Report 9
- ERP Systems: SAP ECC6 (MM, PP, BI), Oracle 11i (HRMS, i-Procurement), SAP Basis, SAP Production Planning, SAP Material Management
- Operating/Networking Systems: MS Windows 9X/ME/NT/2000, MS DOS, Unix, Linux

#### PROJECT PROFESSIONAL ASSIGNMENTS AND PROJECTS

- Implementation of MIS at 5000 Health Facilities of Punjab Pakistan
- Implementation of SAP ERP at Cherat Papersack Pvt Ltd, Ghulam Farooq Group Ltd
- Project Management and Evaluation System for the development projects of Pakistan
- Monitoring of Public Sector Project Federal Government Data Center
- Vision 2030 for the Pakistan/ Build Pakistan Program
- E-Office development for Ministries / Divisions of Pakistan
- Evaluation of Immigration and Passport Project
- Automation of Federal Shariat Court
- Automation of Wafaqi Mohtasib Secretariat Islamabad
- Web portal for the Ministries / Divisions of Pakistan
- Web portal of Planning and Development Division Islamabad
- HMIS(Hospital Management Information System)

#### PERSONAL DETAILS

Contact details Department of Computer Science, COMSATS IIT GT Road, Wah Cantt.  
 Web link: <http://cn.linkedin.com/pub/shafqat-ali-shad/16/6b1/11a/>

#### REFERENCES

Will be furnished upon request.