

Safwan Mahmud Khan

+1-817-721-0132
sainankhan@yahoo.com
http://www.utdallas.edu/~smk091020

7825 McCallum Blvd Apt 920
Dallas, TX 75252

Summary

- Expertise skill in **programming and problem solving**.
- Extensive knowledge in **Network and Information Security** with research experience in MS and Ph.D.
- Achieved **4th position** in ACM ICPC (international programming contest), 2002, Dhaka, Bangladesh site.
- GPA **4.00/4.00** in Master of Science in Computer Science.
- Have **one** submitted journal paper and **four** published international conference papers.
- **2** years of software development and unit testing experience in a Software Company, Mexico.
- **1.2** years of telecom experience in a multinational Telecommunication Service Provider, Bangladesh.
- **1.2** years of software analysis, design and development experience in a Software Firm, Bangladesh.
- **1** semester of hands-on experience in a security project of UTA collaborated with a Software Company, USA.

Education

University of Texas at Dallas **Aug 2009 – Aug 2012 (expected)**
Ph.D. Candidate in Computer Science
Advisor: Kevin Hamlen *Co-advisor:* Bhavani Thuraisingham
Research area: Secure peer-to-peer systems and security in cloud computing.

University of Texas at Arlington **Aug 2006 – Aug 2008**
Master of Science in Computer Science **GPA: 4.00/4.00**
Advisor: Matthew Wright
Thesis: The Dynamics of Salsa: A **Structured Approach to Large-Scale Anonymity**.

University of Dhaka, Bangladesh **Jul 1999 – Jul 2005**
Bachelor of Science (Hons.) in Computer Science & Engineering **Class: First Class**
Advisor: Rafiqul Islam
Final Project: Frequent pattern generation algorithms and medical image classification technique in Data Mining.

Academic Experience

University of Texas at Dallas **Sep 2009 - Present**
Research Assistant *Software Security Lab, Data and Applications Security Lab at UT Dallas*

- Secure peer-to-peer systems.
- Cloud computing security.

University of Texas at Arlington **Apr 2007- Jun 2008**
Graduate Research Assistant *The Information Security Lab (iSec) at UTA*

- Part of a NSF-funded network security project *Salsa*, developing new architectures for online privacy.
- Designed dynamic algorithms for managing a complex system. Then implemented these using Java and verified in simulation. Submitted the entire project work for *Network Protocols and Algorithms* journal.

University of Texas at Arlington **Summer 2007**
Faculty Associate *Collaborated project with "Theft-Proof Data" company*

- Worked in a start-up confidential project related to database security.
- Installed and prepared the Unix (Solaris) server for the project and administered it.
- Designed Self-Certificate Authority and some other security issues for the project.

Professional Experience

Lever-it

Jun 2007- May 2009

Senior Programmer

A software company in Mexico for whom I worked remotely from Dallas for their Mexican office

- Developed *Web Version of Discovery*, a software and hardware inventory product of the company (C#, ASP.NET and some vendor-specific protocols).
- Worked on *Simple Network Management Protocol (SNMP)* and developed SNMP-based software (C#).
- Involved in the product's *Linux Version* project and developed some system level programs (C, C++).
- Worked on the Intel *Active Management Technology (AMT)* and developed AMT-based software (C#).

GrameenPhone (local brand of Telenor, Norway)

Jun 2005- Aug 2006

System Engineer

The leading telecommunication service provider in Bangladesh

- Involved in *Electronic Recharge System (ERS)* team for the prepaid system of the company.
- In charge of the real time system's maintenance as well as solving any problems during transactions.
- Involved in the development and coordination process of the ERS system with database team (Oracle), system admin team (Unix Servers) and the vendor of the software *Bharti Telesoft* from India.
- Developed *Live Alarm System through Mobile Phones* for internal purposes to get the system alert messages instantly whenever there is any problem (VB, Shell Script and Oracle).
- Developed *Online Daily Report of ERS* as our team report tool (PHP and Oracle).

RunningX

Dec 2003 - Feb 2005

System Analyst

A local software firm in Bangladesh

- Involved in the development and testing of the project *Shohagh Paribahan Sales System, First Online Bus Ticket System* in Bangladesh for Shohagh Paribahan Pvt Ltd (ASP and MS SQL Server).
- Worked in the analysis, design and development of a project *Shohagh Paribahan Accounting Application System* for Shohagh Paribahan Pvt Ltd in Bangladesh (PHP and MS SQL Server).
- Worked in a project *Library Management Information System* for Design & Development Consultant (DDL), a private consultant firm in Bangladesh (PHP and MySQL).

Technical Skills

Languages: C/C++/Java/C#/Visual Basic.NET/ASP.NET/OCaml/PHP/HTML/XML/KML/Assembly/Shell Script

Platforms: DOS/Windows (95, 98, 2000, XP, Vista, 7)/Linux/Unix (Solaris)/MacOS X

DBMS: MySQL/MS SQL Server/Oracle/MS Access

Servers: Windows NT/Sun Servers/Tomcat/Apache/IIS

Some Software Applications: Visual Studio.NET/ Microsoft Excel/Microsoft Project/Adobe Photoshop/Adobe Dreamweaver/Adobe Flash/pdf Creator/Zend Safeguard/Putty/WinTask/Toad/Eclipse/SVN/CA/NetBeans

Significant Projects (exclusive of Professional and Academic Experience)

- Worked on a self developed project, where I found *security holes in MeeboMe* widgets and was able to attack it automatically (Java, PHP and C#).
- *Buffer Overflow Attack* (C).
- *Port Scan Detector* (C and some UNIX tools).
- *Instant Messenger* (VB.NET).
- *Web Proxy Server* (Java).
- *Secure Online Bookstore* (PHP, MySQL, SSL and other security stuff).
- *Router Simulation* (C/C++).
- *Drunk Drive* - an online game for SAPVC (ASP.NET, Flash and MS Access).
- *Student Information System* (VB and Oracle).
- *Oil Transaction System* (MS SQL, ASP.NET and C#).

Selected Courses

Computer Programming/ Data Structures and Algorithms/ Design and Analysis of Algorithms/ Special Topics in Information Security/ Secure Programming / Discrete Mathematics/ Operating Systems/ Database Systems/ Computer Networks/ Wireless Mobile Networking and Computing/ Advanced Programming Languages/ Artificial Intelligence.

Research Interests

Secure peer-to-peer systems, security in cloud computing, application security, data security, network security and privacy, data mining and algorithms.

Journal Paper

[J.1] **S. M. Khan**, N. Mallesh, A. Nambiar and M. Wright, *The Dynamics of Salsa: A Robust Structured P2P System*, in International Journal of Network Protocols and Algorithms (NPA), September, 2010. (Submitted)

Conference Papers

[C.1] **S. M. Khan**, M. R. Islam, , M. U. Chowdhury, *Medical Image Classification Using an Efficient Data Mining Technique*, in Proceedings of International Conference on Machine Learning and Applications (ICMLA'04), Louisville, KY, USA, December, 2004.

[C.2] M. R. Islam, **S. M. Khan**, M. Asad-uz-zaman, S. S. K. Robin, *A Comparative Study among Three Algorithms for Frequent Pattern Generation*, in Proceedings of International Conference on Machine Learning and Applications (ICMLA'04), Louisville, KY, USA, December, 2004.

[C.3] M. A. H. Khan, M. A. N. Siddique, M. Asad-uz-zaman, **S. M. Khan**, S. S. K. Robin, *A different approach to barrier synchronization mechanism for the BSP model on message-passing architectures*, in Proceedings of International Conference on Virtual Systems and Multimedia (VSMM 2004), Softopia, Ogaki City, Japan, November, 2004.

[C.4] M. R. Islam, **S. M. Khan**, S. S. K. Robin, M. Asad-uz-zaman, *A Comparative Study among Algorithms for Frequent Pattern Generation in Data Mining*, in Proceedings of IASTED International Conference on Artificial Intelligence and Soft Computing (ASC 2004), Marbella, Spain, September, 2004.

Workshop

[W.1] **S. M. Khan**, M. Wright, *Salsa: a Structured Approach to Large-Scale Anonymity*, a poster presentation in the DIMACS/DyDan Workshop on Mathematical and Computational Methods for Information Security, Houston, Texas, USA, December, 2007.

Honors and Awards

- **Scholarship for Excellence in Information Security** by the department of Computer Science and Engineering, University of Texas at Arlington.
- **Certificate of Achievement for 4th Place** in the 27th ACM International Collegiate Programming Contest (ICPC) 2002, Asia Regional, BUET, Dhaka, Bangladesh.
- **Board Merit Scholarship** for 4 years by Bangladesh Government for excellent results in the Higher Secondary Certificate Examination.
- **Board Merit Scholarship** for 2 years by Bangladesh Government for excellent results in the Secondary School Certificate Examination.

References

Available upon request.

Last updated: October 2010