

MUATH ABDULLAH AL-KHALAF

PERSONAL INFORMATION

- Nationality: Saudi Arabia
- Age: 27

EDUCATION

[2006-Now } UCSB Santa Barbara
PhD student in Computer Science Department

- I am doing my research in Software Verification and Testing and a member of Software Verification Lab supervised by Prof. Tevfik Bultan.
- I am a member of UCSB hackers team.

[1999-2003] King Saud University Riyadh
Bachelor Degree in Computer and Information Sciences

- Graduated as the first of class with 4.81/5.0 GPA and first degree of honor.
- Written a research paper entitled "Linux Arabization" as an assignment for Computer Arabization course. The paper discussed some issues relating to Arabization such as Arabic fonts, Arabic text rendering, right to left windowing libraries in KDE and Gnome and the usage of (.po) and (.pot) files along with gettext tools to arabize different Linux applications.
- Developed with my colleague "Linux Alarm" which is a Linux personal firewall as my graduation project. The firewall was filtering traffic and preventing attacks based on a mixture of internal prepackaged policy and a user added list of trusted programs and services. The application interface was built using KDE. All the attacking attempts were presented to the user as alerts with the ability to customize the alerting classification. These attacks were also logged using MySQL and plain text files. The alerting was done using Syslog daemon and a piping mechanism. The filtering engine was based on IPTables user space tools and Netfilter kernel space framework inside Linux kernel. The project is placed in Sourceforge under <http://sourceforge.net/projects/linuxalarm>.

PROFESSIONAL EXPERIENCE

[June 2005 - 2006] King Saud University Riyadh

Teaching Assistant for summer and this fall semesters in Computer Science Department. I have tutored four courses:

- Introduction to programming with C++.
 - Introduction to programming with Java.
 - Advanced programming with C++.
 - Computer Arabization.
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[June 2003- June 2005]
Riyadh

Al-Elm Information Security Company

Information Security Engineer

- I worked at Al-Elm Company in many research and development projects including the following:
 - Feasibility study on the best platform to develop web applications in inside Al-Elm including PHP, J2EE and .NET platforms. The study also included a comparison between two J2EE application servers WebSphere and JBoss.
 - Conducted a research on secure exchange of information including most suitable cryptographic algorithms and hashing functions, best implementations for these algorithms, best methods for distributing cryptographic keys. Then I designed and developed a cryptographic framework that is used to encrypt and sign messages while transferring them over networks. I have developed three copies of the framework in .NET, .NET compact framework and J2EE. This has been used successfully by more than 4000 companies for more than one year.
 - Designed and developed the system software for a VPN appliance based on Embedded Linux and VPN functionality inside Linux kernel. The system was built from scratch without using any other Embedded Linux distribution. The system configuration interface was developed as a web interface using AppWeb embedded web server and written in customized version of PHP. The system utilizes racoon IKE daemon and OpenSSL library for ISAKMP key exchanging. The produced system was less than 4 MB and has passed all functionality and stress tests.
 - Studied the usage of LDAP protocol for authentication using OpenLDAP on Linux. The study included the best methods for interaction between OpenLDAP and J2EE application servers.
 - Researched the best methods for Identity Federation and secure exchange of identities among different collaborated systems. The research was mainly on Liberty Alliance where I tested the SourceID from Ping Identity which is an open source implementation of SAML and Liberty protocols.
 - Earned the SANS GIAC Security Essentials Certification GSEC. As part of the certification program, I have written a paper titled "Introduction to Java Cryptography" where I explained how to use different cryptographic algorithms and functions practically in Java applications. The paper was based on Bouncy Castle cryptographic library. It was published on SANS' Information Security Reading Room, which is accessible through Internet at www.sans.org/rr/.

AWARDS RECEIVED

- The Best student of King Saud University 2002/2003. This honor is given to students who can balance between their high academic achievements and their effective contributions to university activities.
- Won King Abdulaziz National Award for Scientific Creativity for my graduation project "Linux Alarm" which is a Linux Personal Firewall.

- The graduation project "Linux Alarm" was also chosen among the best three graduation projects in the competition held at King Saud University, College of Computer and Information Sciences at year 2003.
- Won the best open source project for year 2004 from Saudi Linux Users Group for building "Linux Alarm".

ADDITIONAL PROFESSIONAL ACTIVITIES

Participated in 2001 summer Linux Arabization Project held by King Abdulaziz City for Sciences and Technology. In this summer project we have worked on arabizing Linux including KDE and Gnome desktops. This includes providing an Arabic language editor along with some fonts. Also working with library developers to debug different right-to-left issues with programs along with Arabic fonts rendering. I did some research on Arabic encoding, key maps and fonts in Linux and usage of .po files (files containing program messages and words to be translated) to arabize different programs.

COMMUNITY MEMBERSHIPS

Active member of Saudi Linux Users Group, which is part of Saudi Computer Society, for more than five years.

LANGUAGES

Arabic, English, little German

COMMUNITY ACTIVITIES

Represented Saudi Linux Users Group in GITEX international exhibition in Dubai for two years 2002-2003.

Represented Collage of Computer and Information Sciences in King Saud University Cultural Competition where we won the second place among colleges.

Represented my Home City Al-Rass in the National Cultural Competition where we won the second place among Saudi's cities.