MOHAMMAD SELIM MIAH

Software Developer

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Australian permanent resident

Experienced software engineer in designing, developing, debugging and testing new systems & applications. Able to adapt quickly to new environments, concepts, technology and systems. Proven ability to access customer needs and implement effective methods to deliver optimum results. Productive and results oriented in team and individual projects.

KEY SKILLS

- ***Software development:*** C/C++, Java, Android, Visual Basic
- ***Scripting and automation:*** PHP, AWK, Shell, HTML, Perl, Python, java, JSON
- ***Database:*** MySQL, Oracle, Sybase, TimesTen In-Memory Database
- ***Web development:*** PHP, REST APIs, CSS, JavaScript
- ***Operating Systems:*** Unix/Solaris, Linux (Redhat,Ubuntu), MS Windows
- ***Networking:*** Protocols like RIP, OSPF, EIGRP, BGP, TCP/IP, Spanning-tree and OSI models
- ***Protocols:*** TCP/IP, UDP, ARP, DHCP, ICMP, INAP, MAP, SS7, SMTP, SIGTRAN, TELNET, SSH, CIP/Diameter
- ***Application:*** NetBeans, Eclipse, Microsoft Office Suite, MS Visio, Android Studio
- ***Vendors:*** Huawei (Radio and Core Networks), Cisco (Switches and Routers), Ericsson (Core and Service Networks)
- ***Virtualization:*** VMWare

EMPLOYMENTS HISTORY

Southern Cross University
Research Assistant, Software Developer **October 2015—Present**

I am working on remote healthcare project at Southern Cross University (SCHOOL OF BUSINESS AND TOURISM - EXTERNAL) as a research assistant under supervision of DR GOLAM SORWAR (Golam.Sorwar@scu.edu.au).

Key Responsibilities:

- Design and development of a prototype Integrated tele monitoring system
- Java/android tools deployment on embedded system (ECG, accelerometer devices)
- RESTful API development for different platforms including web, mobile and wearables.
- Amazon Web Service (AWS) deployment and management with continuous integration using Jenkins.
- Testing and evaluating the performance of the system with real life application.
- Collaborate with other developers through version control system (VCS) GitHub

Sensis Yellow Pages
Online Content Manager **January 2015—August 2015**

Sensis Yellow Pages is the number one Australian business directory having partnership with Telstra. Sensis help customers building website, advertising online, get found on Google, track online hit results, using social media for business and marketing business online.

Key Responsibilities:

- Manage customers' online database through VMWare
- Verify and update customer's business details; adding appropriate content and graphics
- Search Engine Optimisation (SEO) and Search Engine Marketing (SEM) implementation by choosing appropriate keywords for business
- Enable customers to use online portal to manage their digital advertising, performance reports etc.

Grameenphone Ltd.
Lead System Analyst **August 2010—January 2015**

Grameenphone is one of the world's largest telecommunications service providers with more than 50 million subscribers. It is a joint venture between Telenor of Norway and GrameenBank of Bangladesh.

Key Responsibilities:

- Developing software to detect network vulnerability automatically
- Scripting and automation of Core and Radio network integration and optimization
- Shell/AWK/Perl/Python scripting in Billing, rating, charging and mediation systems
- Developing tools to detect network faults automatically, finding root cause and providing solutions
- Developing in-house software tools, application and web development
- Ericsson version upgrade and software package loading of live telecom nodes
- System backup/tape storage and restoration from backup
- Training internal customers on systems and software/tools
- Systems Administrations of SUN Solaris 9, 10
- User acceptance testing (UAT – both software and hardware testing) of nodes and services
- OSS support with Citrix, maintaining software packages and user profile
- Internetworking of IN & VAS nodes with HLR, MSC and third party products
- Technical analysis of International Roaming signalling and inter-operator connectivity
- Integration of new systems like Ericsson nodes (MGw, MSS, TSS, MSC, TSC, BSC, etc.)
- Ensure all types of connectivity and signalling (C7, SIGTRAN, M3UA Association) among Ericsson & Huawei core nodes & various service (VAS) nodes

Key Achievements:

- ***Network Health Checkup (Java/Shell/Python scripting):*** To automate daily health checkup of IN, VAS, GPRS network. Earlier health checkup was performed manually which required significant amount of manning resources and was prone to human error. A java class was implemented to telnet required commands to Ericsson network elements and output was saved in plain text files. Python scripting used for Huawei network elements. Later those files were parsed and compared with standard KPI values to detect errors automatically.

- ***SOC internal webpage (PHP/MySQL):*** Worked on our department's internal webpage which contain all necessary information of our day to day operation. This webpage consolidates all other in-house developed tools. It also provide necessary information regarding network elements, our network topology, diagrams, process procedures, SLA, reports, contact information of required personnel and organization.

- ***Network Coverage Area (Java/JDBC, PHP/MySQL):*** To precisely locate covering areas of MSC, BSC and BTS serving cells. Grameenphone has a vast network covering the entire country. It is very important to know which network equipment is responsible for which location of coverage. Previously there was no standard way of determining covering location. Oracle database was used to store covering area address of each BTS cell (around 23000 cells). Then developed java based (J2SE & JDBC) user interface to map BTS location with BSCs and MSCs coverage area. Also prepared design documents using UML, Design patterns, and IBM Rational Rose. Finally Thana and District-wise coverage is deployed in our in-house webpage (PHP, MySQL) for concerned stake holder's usage.

- ***Lawful Interception (Java/JDBC, Python, Oracle):*** Real time subscriber tracing to assist law enforcing agencies. Earlier subscriber specific real time sensitive information was gathered manually by sending commands to different network elements. Since, Grameenphone is a complex network of different vendors and platforms; it required significant time to locate/trace a subscriber. But law enforcing agencies require real time information. So, this tool was developed which can automatically collect information from all vendor/platforms and correlate those data to get required information. Java (J2SE), Python, Oracle and JDBC for this software.

GrameenPhone Ltd.
Software Automation Support Engineer **April 2005—August 2010**

Key Responsibilities:

- Automation in Ericsson OSS RC, BSC, RNC, RBS fault handling
- Scripting and automation of network operation routine jobs

- Developing tools to detect network faults automatically
- Automation of network integration and optimization
- Network monitoring and fault handling on 24x7 roster
- Core network integration, optimisation, operations & Maintenance (O&M)
- Ensure connectivity with other operators [inter-operator voice & SMS connectivity]

Key Achievements:

- ***Rollout Support (Java, PHP/MySQL):*** To provide radio parameters' status via Push-Pull SMS using SMPP protocol. Our field engineers around the country need to know status of various cell parameters. Previously, they called our hotline and our terminal engineers provided necessary information. Amount of called that we received per day was huge. After implementation of this project, field engineers are now able to get required information using push-pull SMS short codes.

- ***System Backup Automation (Shell Scripting, PHP/MYSQL):*** Ericsson GSM telecom equipment requires preservation of sensitive data. Previously, it was done by transferring backup to physical storage media (magnetic tape/optical disk), which was tremendously manual work and time consuming. Centralized backup server was developed which collect all necessary files using secure FTP. A webpage was developed (PHP, MySQL) to store information of network elements with latest backup. MS Visio diagram was used to show network element topographically. All concerned stake holders can easily collect backup from the central server no matter how far they are located physically.

Sansons Corporation
Software Developer (Java) **October 2004 – April 2005**

Key Responsibilities:

- Software Development in Java (J2SE, J2EE, J2ME, JSP)
- Software debugging and JUnit testing
- Research work on RAT (Robust Audio Toolkit)
- Technical document writing

Key Achievement:

Calculator for Mobile Devices (Java/J2ME): In order to meet continuous demand of mobile applications, a Bengali talking calculator was developed which can be used by local laymen users who doesn't understand English. J2ME was used to build up this application. Another excellent feature of the application is that it can pronounce the result after any arithmetic operation.

EDUCATION

Bachelor of Science (Computer Science and Engineering), Bangladesh University of Engineering & Technology, 2004

Undergraduate Projects:

- ***Digital Clock and Calendar (C/C++):*** I developed a digital calendar which displays monthly calendar with a digital clock on top. Using the PageUp or PageDown button display year can be changed. Using left/right arrow key display month can be changed. It was my first semester project. I implemented it in C language.

- ***Video/Image processing (Visual C++):*** Me and one of my class mates worked together on this project. Our task was to replace portion of frame/picture by another from video image. So, a person's picture can be replaced by another keeping the background picture same. We implemented it in Visual C++ and used Edge detection algorithm to detect the image from each frame of that video.

- ***Library Management System (Visual Basic, Oracle):*** Library Books information was stored in Oracle database. I developed front end application using Visual Basic to retrieve data based on user's requirement. Book status was marked as on loan or available in inventory. User can request available books only. Fine/penalty system was introduced for defaulters of loan. Crystal reports were used for better presentation of data.

- ***Live Cricket Score Board (Java):*** I developed a java (Swing) based cricket score board which took input from users and displayed scores, ranking, players profile etc. I simulated real scoreboard system that we see on TV.

PROFESSIONAL DEVELOPMENT & TRAINING

- ***Oracle Database 11g performance Tuning***-Cisco valley Network Academy, November 2012
- ***IPSTP Operation and Maintenance***- Huawei Technologies, May 2011
- ***GSM MSOFTX Data Configuration***- Huawei Technologies, 24-Dec-2008 To 04-Jan-2009
- ***NE Series High End Routers Maintenance***- Huawei Technologies, October 2008
- ***Team Working Course***- British Council, July 2008
- ***GSM/UMTS SOFT SWITCH FUNDAMENTAL***- Huawei Technologies, May 2008
- ***GPRS/UMTS Fundamental***- Huawei Technologies,May 2008
- ***Leadership Skill Course***- British Council, November 2007
- ***UMTS-Split Architecture and SIGTRAN***- APIS Technical Training, Sweden,August 2007
- ***Negotiation Skill Course***- British Council, June 2007
- ***NOC in-house development course***-Grameenphone Ltd, May 2007

REFERENCES

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