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INDUSTRY EXPERIENCE

Software Developer (Full Time)
VIC, Australia

Leap eLearning
Mar 2012 - current

- Develop a full featured builder module where writers can create, edit, upload course content. PHP CodeIgniter framework has been used in the back end and front end has been developed using jQuery, backbone, underscore, node, CSS, and HTML.
- Fix bugs and do testing.

Software Developer (Part time)
NSW, Australia

Business Faculty, Southern Cross University
Nov 2009 - Feb 2012

- Development of a Mobile based software for e-health system, primarily using J2ME then another version for *android*. It has three components:
 - A PC based application (using C#.NET) which reads data from ECG device (AliveECG) via *bluetooth* and sends the data to central server using JSON. The application has a doctor's module developed using WPF and C#(code behind) that shows patients with their severity level.
 - A server module (using PHP) that can read and send data using JSON and can also store data in a MySQL database.
 - Mobile applications (using J2ME) where separate application modules are provided for doctors and patients. The doctor module shows patients' data in real time and the patient module provides easy interface for patient to quickly contact specialist/doctor/nurse.

Sr. System Analyst (Full time)
Dhaka, Bangladesh

Robi Axiata Limited
Jan 2005 - May 2008

- In charge of Interconnect Billing System (BSCS 8.0) and VOIP billing system.
- Developed automated client applications for Customer Management Server (CMS) (using java) and run those for bulk update from time to time.
- Developed Corporate Bill Viewer (using PHP, MSSQL) and manage it for audit department.
- Lead product configuration team (PX module of BSCS 8.0).
- Served as *business analyst* for different projects during cut off phase.

Programmer (Full time)
Dhaka, Bangladesh

Sikraft Solutions Ltd.
Jun 2004 - Jan 2005

- Coding Client side of Integrated Hospital Management System by C#. This includes design & coding for front-end components e.g. patient module, doctor module, roster module, medicine module, appointment module.
- Testing different modules (peer to peer).

PROGRAMMING SKILLS

Programming Languages: C, C++, C#(Mono & .NET), WPF, ASP.NET, Visual Basic, Visual C++, Java (J2SE, J2EE, J2ME), JavaScript, PHP, Python, Perl, Prolog, Ruby on Rails
Database: MySQL(both Windows and Linux), Oracle (9i), Microsoft SQL server, MS Access
Web Technology: HTML, CSS, AJAX, JQuery, MooTool, CMS (Joomla, SyntaxCMS), Symphony, Cake PHP.
Libraries and Tools: Android Development Toolkit (ADT), Google App Engine, Facebook API, OpenGL, L^AT_EX, TikZ, pgfplot, GIMP, IBM Rational Rose, MS Visio, Vim, Emacs.
Version Controls: SVN (both server and client), GIT (client only), VSS (client only).

EDUCATION	PhD in Computer Science	2008 - Feb 2012
	Monash University	Supervisor: Madhu Chetty and Manzur Murshed
	Thesis: <i>Memetic approach for prediction of low resolution protein structure using lattice models</i>	
	Bachelor of Science in Computer Science and Engineering	1999 - 2004
	Bangladesh University of Engineering and Technology (BUET)	With Honors (82.4%)
	Thesis: <i>Solving optimization problem using improved fast evolutionary programming</i>	
PROFESSIONAL TRAINING AND FURTHER QUALIFICATIONS	NGN Engineer Training	
	Training Center, Huawei Technologies Co., Ltd.	2007
	ASP.NET	
	Mantrust Software Ltd., Dhaka, Bangladesh.	2006
	Web Programming(HTML, PHP , MySQL)	
	Institute of Information and Communication Technology (IICT), BUET, Bangladesh	2003
RESEARCH EXPERIENCE	Cultural Memetic Algorithm (C#, shell script):	2008-2011
	Proposed and implemented a novel evolutionary algorithm, called <i>cultural memetic algorithm</i> (CMA), for a NP-hard problem, protein structure prediction using lattice models. Both implementations for Windows (using C#.NET) and Linux (using mono) of CMA are developed. A large scale implementation of CMA has been done using Monash Campus Grids (MCG) and Victorian Partnership for Advanced Computing (VPAC) clusters. Shell script has been extensively used to run CMA in batch mode for different sequence and to process the output.	
	Divide and Conquer Niching (C#, shell script):	2008-2011
	Proposed and implemented a novel niching technique, called <i>divide and conquer niching</i> (DCN), for CMA. Both implementations for Windows (using C#.NET) and Linux (using mono) of DCN on CMA are developed.	
	Output Analyser (C#.NET, MySQL):	2010-2011
	A complete package has been developed that can process output files, store summary results in database, presents different analysis tables and graphs. It also generated automated code for exporting tables and structures to L ^A T _E X. (Please visit my website for detail)	
OTHER PROJECTS	Mobile based E-health System (J2ME, java web service, MySQL):	2010-2011
	Capable of showing patient information including BP, temperature, ECG data, from a central database using web services. Designed and developed a complete mobile based e-health system using J2ME, SOAP, GlassFish web server and MySQL database as a part of the casual contract with the Southern Cross University. Another version I have developed for android platform using PHP based JSONRPC server.	
	RemindAnyWay (RAW) (Android, PHP, MySQL, JSON, Symphony):	2010
	Participated in the design and development as a team for the App My State contest. Designed and developed server side application and database, also processed government data and stored in the database for the application in the required format. Our application won the <i>popular choice award</i> . We have used GIT for version controlling of this project.	
	Salat-Scheduler (C#):	2008
	Smart system for salat (prayer) time and appointment scheduling. Generates alarm and task-bar notification. Also has export import facilities.	
	Summary Interconnect Billing System (PHP, MSSQL):	2008
	Capable of generating invoice, reports for comparative analysis and can also perform reconciliation within a minimal time.	
	VOIP Billing System (PHP, MySQL):	2008
	A full billing system with rating engine build with PHP, MySQL which also include a web based configuration and reporting module.	
	Automatic Unbar (Java):	2007
	Automatically unbars the subscribers who have paid their due bills and replaces previous application at Robi.	

Machine tracker (C#): 2006
Monitors that the servers, gateways, and routers used for VOIP purpose and generates automatic SMS alert if any of the machines is down. Initiated, designed and developed this for Robi to reduce loss due to the failure of the machines.

GRE Vocabulary Learning (PHP, AJAX, CSS, MySQL): 2006
Provides a comprehensive GRE word-list. User can mark tough words and test their skills. Very handy for GRE word list learners.

CDR Generator (C#): 2005
Generates call detail record (CDR) in a file for any specific time, duration, any IMSI, any rate plan, any type (origination, termination, call forwarding), tele/sms. This provided a helpful platform to test new configuration. Initiated and developed this at Robi while working with product module.

MENTORING
EXPERIENCE **Casual Research Assistant** Jul 2008 - current

- Marking different courses.
- Replying session group questions.

Examination Invigilator (Casual) Sep 2011 - current

- Work as an invigilator during exams.

Casual/Sessional Position Feb 2011 - current

- Taking notes for the students with disabilities.

PUBLICATIONS **Tutor (Casual Contract)** Apr 2004 - Jun 2004

I have more than 10 publication on different conferences/journals. Please visit my website to see the list of publications.

AWARDS **Popular Choice Award** 2010 App My State Contest

As a team member of **RAW**, I won this prize from the Premier of Victoria, John Brumby.

Telstra IT Endeavour award 2010 Gippsland School of IT

As a recognition to the outstanding contribution as a postgraduate student of GSIT, Telstra provided the award.

Award for Outstanding Contribution 2009 Higher Degree by Research

Best poster award from *Gippsland Poster Exhibition*

Award for Outstanding Contribution 2009 Higher Degree by Research

Best poster award from *Monash University Poster Exhibition*

Award for Best Volunteer 2009 MUGSU Award

For outstanding work as a GAPS Secretary

COMMUNITY
INVOLVEMENT **GAPS President** Nov 2009 - Nov 2010

Elected as the president of Gippsland Association of Postgraduate Students (GAPS) by votes from all postgraduate students of Monash University Gippsland Campus.

GAPS Secretary Nov 2008 - Nov 2009

Managed all the events arranged by GAPS.

MUIS Vice President Nov 2008 - Nov 2009

Organized different community gatherings and notified every member of the Monash University Islamic Society (MUIS) about the prayer time updates.

INTERESTS **Games**

Played in grade C cricket for the Monash University Cricket Club in 2008-2009. Played table tennis and badminton tournament arranged by GAPS.

Hobbies

Like to do gardening. Grown a small veggie-garden in the back yard of my house. ACM problem solving is also one of my hobbies (Visit : **Timus Site**)

REFERENCES

A/Prof **Manzur Murshed**

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