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| EDUCATION | The University of Memphis, Memphis, TN, USA <i>PhD Student, Computer Science</i> | Fall'16 - Present |
| | Bangladesh University of Engineering and Technology, Dhaka, Bangladesh <i>Bachelor of Science, Computer Science and Engineering</i> | February, 2013 |
| USA VISA | F1 Student | |
| RESEARCH | Currently I'm working in The GTCS Lab under Dr. Shiva. My research interest involves Cloud Computing, Network Security and Game Theory. I use Openstack and Python for my experimentation. Security issues with the moving target defense is my key research area. During my undergraduate studies, I worked under Dr. Saidur Rahman in the Graph Visualization Lab at BUET. We have studied and analyzed the current state of the road and transportation of Dhaka city. We analyzed and simulated Dijkstras Algorithm on Dhaka City. Then, we simulated the alternating shortest path. We came up with different strategies of applying Dijkstra's Algorithm on a large set of data efficiently and compared the performance issues. We used Openstreetmap for the map database. | |
| EXPERIENCE | Graduate Assistant August, 2016 - Present I'm a Teaching Assistant for The Computer Science Department. In this semester I'm guiding students for the courses Computer Architecture and Professional Development. | The University of Memphis Memphis, TN, USA |
| | Senior Software Engineer May, 2014 - July, 2016 I worked on multi platform. The first one was a scalable web applications based on asynchronous python server (Tornado), task-scheduling using Celery, SQLAlchemy the ORM, RESTful and SOAP based web services and so on. The second one was a small Python-Django based webapp to serve emails as sms. There were inter-dependency between them. I lead the team to develop and maintain the both application. | ZS Solutions Ltd. Banani, Dhaka, Bangladesh |
| | Member, Research and Development February, 2013 - April, 2014 CommLink Info Tech Ltd. is a research oriented company. Their work domain mainly focused on networking & telecommunication solution. Here I worked on (Simple Network Management Protocol)SNMP, java-snmp library, python-snmp library, java 2D graphics and SIP Call monitoring software in Python. I also worked in python-django for doradory.com | CommLink Info Tech Ltd. Gulshan, Dhaka, Bangladesh |
| PROJECTS | SmartMessage: A highly scalable web messaging application addressing C10K issue. | |

- Python/Tornado web server
- Celery/RabbitMQ
- SQLAlchemy ORM + MySQL
- Advanced Message Queuing Protocol (AMQP)
- SOAP

Email2SMS: Web application to serve emails as SMS.

- Python/Django + MySQL
- Crontab
- MailServer

SmartMed: Doctor's patient management solution.

- Python/Django + MySQL
- RESTful APIs(DRF)
- Celery/RabbitMQ
- VanillaJS
- Bootstrap, JQuery

RoadSafety: An initiative by Brac and BDCyclists to have safer road. This app allows users to watch/mark safety concerns in the map

- Google Map
- Python/Django + MySQL
- RESTful APIs(DRF)
- VanillaJS
- Bootstrap

Online Shop doradory.com: first auction based online shop in Bangladesh.

- Python/Django + MySQL
- Celery/RabbitMQ

Call Center Solution: a SIP call center solution with Application server and Asterisk server. A Call monitor program can create/edit/delete an agent, display CDR records with different charts as well as can play recorded voice file. It can configure voice mail, follow me, call scheduling, robot calling, inward and outward conferences etc. It can make audio/video call, conference call, schedule call for later, Instant messaging, video conference etc.

- Asterisk SIP
- Python/Django + MySQL

Network Management Software(NMS): NMS for Banglaphone Network.

- Simple Network Management Protocol(SNMP)
- Management Information Base(MIB)
- Java SNMP
- Hibernate + MySQL

BibleShake: Bible Shake generates random scriptures and provides a unique way to navigate the Bible. Shake your device to display a random verse or chapter, or use the spinner wheels to quickly jump to specific verses. Bible shake currently offers full KJV and ASV Bible versions and provides a range of filter options so you can decide where the random verse will be selected from.

- Java/Android

- SQLite

Surveillance System for Dhaka City:

- Openstreet MAP
- Algorithmic code with VanilaJS
- Bootstrap

**TECNICAL
SKILL**

Programming Language: C, C++, C#, Python, Java, Matlab, JavaScript, OpenGL, PHP, 8086 assembly language, prolog, yacc, flex

Frameworks and Libraries: Tornado, Django, SQLAlchemy, CodeIgniter, Hibernate, Node.js, Bootstrap, JQuery

Operating Systems: Several Linux distributions, Windows, OS X

DBMS: MySQL, Oracle SQL, SQLite

Others: Git, SVN, Packet Tracer, ~~LaTeX~~ \LaTeX , jmeter, unit testing

REFERENCE

SAJJAN G. SHIVA Ph.D., Fellow of IEEE

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