A. B. M. **Nazibullah** Software Engineer (Deputy Director, ICT) | Bangladesh Rural Electrification Board, Dhaka

Obag- 2684, Road- 11/1, Block- A, Sayed Nagar, Notun Bazar, Vatara, Gulshan, Dhaka-1212



Experienced Technical Manager with a demonstrated history of working in the research industry. Well-versed in software development covering multiple platforms with C/C++, JAVA, Python. Skilled leader with proven ability to motivate, educate, and manage a team of professionals to accomplish challenging tasks and effectively track changes. Highly motivated to be innovative and dynamic to face any challenges in such an organization where contributions will be acknowledged.

📑 Skills

C/C++,C#,Java, Python, Javascript Programming Technology AI, ML, DL, Big Data, Cyber Security

Frameworks Qt,.Net Core, AngularJS, MFC, Spring Boot, C++ REST SDK

Database Oracle Database, PostgreSQL, MySQL, SQLite

Project Management Agile, Scrum, JIRA, Confluence

Development Tools IntelliJ Idea, Eclipse, Visual Studio Code, Maven, Ant, SVN, git

Middleware Tomcat, Apache2, NGINX

Operating systems Linux, Android, Tizen, Mac OS X, Windows



PROFESSIONAL EXPERIENCE

Present December 2019

Software Engineer (Deputy Director, ICT) | Bangladesh Rural Electrification Board

Leading Software Division-2 of ICT Directorate, BREB. Notable Accomplishments are:

- > Postpaid billing system. Managing technical side of the postpaid billing system of Bangladesh Rural Electrification Board. This system based on 30 million consumers which is about 90 percent of the total electric consumers of the country.
- > Integrated centralized billing system. Managing Integrated Centralized billing system project. This system will modernise the existing billing system.
- > Data Center Establishment. Monitoring and support Centralized Data center establishment for BREB.
- > API based online payment system. Managing and developing API based online postpaid bill collection system which enables the feature to consumers to pay their bill staying at home.
- > 🗹 Palli Biddyut Sheba App Development. An app for consumers of BREB to view electricity usage, billing and give customer support.
- > Smart Office. Planning and leading Smart office management projects.

Net6 | AngularJS | VueJS | Docker | Kubernetes | Data Center | Project Management | Android | Java |

December 2019 March 2019

Technical Lead | Samsung R&D Institute Bangladesh Ltd, Dhaka

Leading AI based UI Automation Project and Working with Samsung DeX project. Notable Accomplishments are:

- > Samsung DeX 🗗 Samsung DeX Development. The most prominent feature of Samsung's flagship mobile device - Note 10, to take the multitasking to a new level. With just a USB cable user can cast PC-Like experience with Samsung DeX. Moreover, things like videos, artwork, and documents can be managed easily between phone and PC while using your phone as a phone.successful achievement of this project are:
 - > Secure the release with Note 10 device within very tight schedule.
 - > Port windows project for ARM64 build
 - > Multi DPI Support in Samsung DeX windows client
- > AI based UI Object Detetection. A complete AI based ui object detection tool with CNN and RNN which detects the UI objects like button, logos from Mobile UI and predicts the relative relations among UI objects in XML.

C/C++ Win32 MFC Android Java Qt Python

March 2019 March 2017

Lead Engineer | Samsung R&D Institute Bangladesh Ltd, Dhaka

Leading AI based UI Automation Project and Working with Samsung AI Platform. Notable Accomplishments are :

- > AI based UI Object Detetection. A complete AI based ui object detection tool with CNN and RNN which detects the UI objects like button, logos from Mobile UI and predicts the relative relations among UI objects in XML.
- > Samsung AI Platform Verification. Benchmark the accuracy, functionality and performance of Samsung's Upcoming AI Platforms REST and gRPC apis.
- > Plugin Development of Apache JMeter for Custom Sampler to support gRPC api performance benchmarking of Samsung Al Platform.
- > GitHub web-hook development for Issue Management System with Django. This web-hook is globally used internally all over GRCs of Samsung for AI Platform Issue management. This tool includes following features:
 - > Automatic Issue Assignment and Labeling
 - > Automatic Notification to project manager of corresponding team with issue.
 - > Filter Issues in different columns according to the completion status.
- > TestHub implementation with Jenkins for regression of Samsung AI Platform Api benchmarking.
- > Al based **Autonomous Driving System Simulator** Development with Unity3D and Python. Main Features of this tools are:
 - > Autonomous Car Driving in a realistic 3D environment by understating Scene.
 - > Al Car, Human movement in 3D environment.
 - > Scene Segmentation to feed to Neural Network to precept the scene objects
 - > Depth map shader to feed to Neural Network to precept the distance of objects.
- > Al based **Semi Automated Labeling and Data Generation** Tool Development based on C/C++ and Python. Most Notable Features of this tools are:
 - > Qt based User friendly UI for Data generation tool
 - > Class wise semi segmented region prediction based on Deep Learning.
 - > User can customize detected segmentation.
 - > User can add, remove, edit new segment and assign new class.
 - > Save the generated segmented data and labeling in customizable structure.
- > UI Automator Tool Development. An unified solution for UI Automation of mobile platforms both Vision and Object based approach. Most Important features of this tools are:
 - > Almost 100% accurate UI Automation and Testing tool.
 - > A GUI Testing tool Developed in JAVA back-end with C/C++.
 - > GUI testing of multiple devices like (Mobile, Wearable, TV) at the same time.
 - Capture screen buffer to stream to VNC and give the user real time scripting experience with device.
 - > VNC based viewer to generate custom easy to code script generation.
 - > Code editor with Auto completion support.
 - > Vision based solution to detect the UI elements by template matching.
 - > OCR implementation to extract the text along with positional information.
 - > UI Information extraction in a hierarchical fashion with ATSPI2 core library manipulation.

JavaFx | Java | C/C++ | Qt | Python | Apache2 | NGINX | Django | IntelliJ Idea | Maven | Spring Boot | Jenkins |

Feb 2017 Feb 2015

Sr. Software Engineer | Samsung R&D Institute Bangladesh Ltd, Dhaka

Working for Tizen core modules, Develop Tizen Compliance Tool and Tizen UI Automation. Notable Accomplishments are:

- > Tizen Behavioral Test tool TBT Development. Tool for Functional performance of Tizen OS's core apis for different modules including Bluetooth, NFC, WiFi etc. This is tool is under Tizen Compliance. Every Tizen device should pass through this compliance tool for pubic release. Notable Features of this tool are:
 - > Cover Each and every apis of Tizen OS with all possible scenarios that needs Users behavioral interaction
 - > Modular based Architecture implementation to manipulate different modules easily.
 - > Standardized reference implementation of core apis for Tizen OS.
 - > Report generation according to Tizen Compliance.
- > Customize **Tizen OS core modules** and build with GBS (Git Build System) for memory leak identification with valgrind.
- > Code coverage of Tizen Compliance Tool by customizing core modules to modify in Tizen OS core layer using Gcov.
- > Port open source project ffmpeg for Tizen OS to stream screen buffer.
- > Implement VNC sever and client to stream screen buffer of Tizen device as emulator.
- > Developed Tizen UI Automation Tool using fMBT and Sikuili Based and Java and Python

Tizen Linux OS GBS git VNC JAVA C/C+ Python Bash

Feb 2015

July 2013

Software Engineer | Samsung R&D Institute Bangladesh Ltd, Dhaka

Working with Tizen core modules, Develop Benchmark Tool and Porting different open-source library for newly born Tizen OS.

- > Tizen Mobile Graphics Benchmark Tool Development.
- > Android Gear Graphics Benchmark Tool Development
- > Port Box2d physics engine for Tizen platform.
- > Port Cocos2d-x Game enging for Tizen platform.
- > 2D Game Development for Tizen OS

Android Tizen Benchmark OpenGL box2d cocos2d-x Game Development

June 2013 August 2012

Jr. Software Engineer | Embedded Engineering & Robotics Technology, Dhaka

Developing Simulator for Bangladesh Army. Notable Accomplishments are:

- > 3D Driving Simulator Development with Delta3D game engine, OpenSceneGraph and Bullet physics in C/C++.
- > 3D Tank Simulator Development with Delta3D game engine, OpenSceneGraph and Bullet physics in C/C++
- > Tank Simulator Testing Tool Development in Qt

C/C++ 3D Game Development Simulator Bullet Physics Qt Serial Communication

LANGUAGES



+ STRENGTH

- > Quick Learner
- > Passionate
- > Motivated
- > Autonomous

EDUCATION

Continuing M.Sc. in Computer Science & Engineering, Bangladesh University of Professionals (BUP)

2011 B.Sc. in Computer Science & Engineering, Rajshahi University of Engineering & Technology (RUET)

2007 Alim Equiv. to H.S.C, Madinatul Ulum Kamil Madrasah

2000 Dakhil Equiv. to S.S.C, Madinatul Ulum Kamil Madrasah

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TRAININGS AND CERTIFICATIONS

- > Oracle Database Administration 2019 Certified Professional (OCP)
- > Oracle Database 12c Administrator Certified Associate (OCA)
- > Oracle Database SQL Certified Associate (OCA)
- > Certified Data Centre Professional (CDCP)
- > ISO 27001:2022 Certified Lead Implementer Professional (CLIP)
- > Training on Certified Information Systems Security Professional (CISSP), IBCS PRIMAX
- > Training on Certified Ethical Hacker (CEH), IBCS PRIMAX
- > Training on Redhat Certified System Administrator (RHCSA), LINUX Pathshala
- > Training on Oracle Java EE 7 Application Developer, IBCS PRIMAX

Awards

- 2021 Digital Bangladesh Award, National Level, Technical-Personal-Government Category
- 2015 Samsung R&D Institute Bangladesh Ltd. Icon of the month
- 2014 Samsung R&D Institute Bangladesh Ltd. Iconic Team Member
- 2013 Samsung Global Advanced level programmer
- 2007-2011 Technical Board Scholarship, Rajshahi University of Engineering & Technology
 - 2007 H.S.C Education Board Scholarship
 - 2005 S.S.C Education Board Scholarship

CENTRALIZED BILLING DATA GATEWAY V2.0

☑ Information Collection System

An Under Development Upgraded version of existing Billing system C CBDG to collect consumer bills online integrated with a number of (Mobile Financial Services) MFS. So that the consumer of Bangaldesh Rural Electrification Board can pay

.Net6 | AngularJs | Oracle | Crystal Report | Redis | Docker | Kubernetes |

Information Collection System

2021

2022

☑ Information Collection System

Web Application to Collect different types of information from more than 550 Pallibiddyut Samities (subsidiary of Bangaldesh Rural Electrification Board) and process various kinds of reporting after data analysis

Python VueJs PostgreSQL Jasper Report

DIGITAL BILLPAYMENT CERTIFICATE

2021

☑ Digital BillPayment Certificate

Web Application to Provide 30 million consumers Digital Billpayment certificate and background reporting for internal office purpose for Bangladesh Rural Electrification Board

Net6 VueJs Oracle Crystal Report

PALLI BIDDYUT SHEBA MOBILE APP

2020

Palli Biddyut Sheba

Android Application for Consumer Billing Information and support of Bangladesh Rural Electrification Board

Android Java

3D Measurement 2019

☑ 3D Measurement

iOS Application for Measurement objects volume in a room and calculate packaging required to shift house from one place to another place. The 3D environment scan is done with Structure I/O sensor and 3D Mesh manipulation and measurement is done with OpenGL

iOS Objective-C C/C++ OpenGL Structure I/O

FALLOUT 2018

☑ Play Store

Android Fun Arcade Game Developed with Cocos2d-x game engine. The concept is very simple but challenging. user needs to match the color with the shape to clear the continuous Fallout

Android Cocos2d-x Game Development

RESTAURANT MANAGEMENT 2017

github.com/nazib07/RestaurantManagement

Qt Based Restaurant Management System. This customizable restaurant management system includes customer order processing, table management, order processing to kitchen, POS system, Inventory management system etc.

C/C++ Qt SQLite

SHAREROUTE 2017

github.com/nazib07/ShareRoute

An Android App to share route where Google map cannot reach. User can save his track for future sharing or he can draw route and share to his friends to a granular level which google map ignores.

Android Java Map

QTSERIALCOMM 2013

github.com/nazib07/QtSerialComm

Serial communication library in Qt to communicate with hardware. this tool was a pet project for Tank simulator testing tool. With this library it was possible to mimic the hardware communication from ATMega32 with 3D Game Environment.

Qt C/C++ Serial Communication

66 REFERENCES

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