

Summary

Full stack software engineer offering seven years of experience in building web and desktop applications and distributed systems.

Extensive experience in Agile Development, Test-Driven Development, Domain Driven Design, Object-Oriented Design, Service Oriented Architecture.

Experience in the full software development lifecycle – from concept through delivery of next-generation applications and customizable solutions.

Known for excellent troubleshooting/debugging skills – able to analyze code and engineer well-researched, cost-effective, responsive solutions.

An excellent problem-solver, able to quickly grasp complex systems and identify opportunities for improvements and resolution of critical issues.

Key areas:

Programming, Enterprise Applications, Distributed Applications, Agile, Databases (SQL/NoSQL), Test-driven development (TDD/BDD), SPA, Domain Driven Design, CQRS, Event Sourcing, Design Patterns. REST, SOA, MVVM, MVP, MVC, User Experience.

Technology Stack

Client Side: DurandalJS, AngularJS, Angular Material, Aurelia, jQuery, HTML, CSS, JSPM, RequireJS, SystemJS, Cordova, ReactiveUI, Xamarin, Winforms, WPF

Server Side: C#, .NET, ASP.NET, ASP.NET MVC, Web API, JavaScript/NodeJS, EntityFramework, NHibernate, xUnit, NUnit, Moq, Owin, OpenID Connect, Topshelf, Windows Service, Hangfire, Log4Net, NLog, FluentMigrator, Castle Windsor, Ninject, AutoMapper, EasyNetQ

Database: MS SQL Server, MySQL, Oracle, MongoDB, RavenDB, RethinkDB

IDE/Text Editors: Vim, Visual Studio, WebStorm, IntelliJ Idea, Sublime, Atom, VSCode

SCM: Git, Mercurial, Subversion

CI: TeamCity,

Project Management/Issue Tracker: Youtrack, TargetProcess

Queue: RabbitMQ, MSMQ

Service Bus: MassTransit

UI Prototyping: Axure RP

Operating System: Windows, Linux

Programming Language

Language Level Known since

C# Advanced 2005

JavaScript Advanced 2009

Typescript Intermediate 2014

VB.NET Intermediate 2009

I am also exposed to C/C++, Rust, Java, PHP, Go, F#, Haskell, Ruby etc.

Experience:

Senior Software Engineer

2010-Present

C&E Software Solutions

Project: ERP for Bangladesh Army

Developed and maintained an ERP solution for one of the largest government organizations of Bangladesh (Bangladesh Army) with over 150000 users. The system manages 820 units located across the country and over 250000 people. The solutions consists of several modules like HRM, Accounting, Training, Result Processing, Stock & Inventory, Ration Management, POL Management etc.

Highlights:

- Wrote a visual query builder and a search platform that operates on a highly de-normalized data repository containing huge volume of data.
- Wrote high performance, secure and reliable REST-full Web API leveraging asynchronous programming technique; concurrency challenges needed to be overcome at the database and application layers
- Developed task based responsive UI that talks to JSON based API backend using DurandalJS and KnockoutJS.
- Wrote highly reusable custom components using KnockoutJS leveraging other JavaScript libraries like MomentJS, JQuery, Bootstrap etc.
- Partitioned the system into independent services and implemented high level inter service communication/integration framework via RabbitMQ and POJO events/messages leveraging windows service and Topshelf.
- Avoided distributed transactions/two phase commits by ensuring message's idempotency and taking advantage of message queue's at-least-once delivery guarantees.
- Wrote scaffolder in PowerShell and a helper framework that gave 700% productivity boost to developers.
- Wrote CLI tools in C# to facilitate ETL (Extract Transform Load) from sources including CSV, Excel Sheet, Oracle, and MySQL to SQL Server.
- Optimized application performance utilizing IL Weaving and Aspect Oriented programming by replacing dynamic proxy based code.
- Using reflection based Meta programming technique and dynamics to write frameworks that improved the code quality by eliminating duplications for nonperformance critical part of the application.
- Wrote/implemented algorithms in C# to arrange c# types/objects in terms of dependency that facilitated reliable change detection and updating/patching.
- Wrote scripts for monitoring service health by reading logs from system's EventLog.
- Wrote PowerShell scripts to carry out continuous deployment using MS Deploy for windows services and web applications.
- Contributed software engineering expertise in the development of products through the software lifecycle, from requirements definition through successful deployment.
- Introduced methodologies and best practices that enhanced product definition, testing, release processes and earning the highest customer satisfaction.

Technology:

C#, .NET, JavaScript, Typescript, Web API, ASP.NET MVC, Windows Service, RabbitMQ, SQL Server, MS Deploy, TopShelf, EasyNetQ, Ninject, EntityFramework, Fluent Migrator, PetaPoco, CLI,

DurandalJS, KnockoutJS, Bootstrap, Less, Windows Server, IIS, Moment, Linq, PowerShell, Moq, xUnit, TeamCity, VisualStudio, Vim, YouTrack, Hangfire

Project: Hospital Management System

Lead the development company's flagship product designed especially for private Hospitals. This is a complex system consisting of the modules like OPD, IPD, Nursing Station, Admission, Emergency, OT, Day Care Center, Diagnostic Center, MRD, MIS, and Accounting, Payroll, HRM etc.

Highlights:

- Involved in requirements collection and analysis by collaborating with domain experts and stake holders
- Developed SPAs (Single Page Applications) using AngularJS and Angular Material per module
- Integrated with OpenID Connect based authentication/authorization servers for single sign on across multiple apps.
- Wrote printing services to enable silent printing for various receipts.
- Wrote jobs/background tasks using hangfire to carry out re.
- Analytical reporting .
- Created a high fidelity mock up's using Auxre RP and shared with stake holders and users to understand the true user experience.
- Wrote tasks (gulp) to automate development process.
- Wrote script with JavaScript/NodeJS using regular expressions that read/parse application code(C# XML, HTML and Javascript) and change/inject code based on the configuration - achieving faster deployment to multiple customer

Technology:

C#, .NET, JavaScript, TypeScript, AngularJS, Angular Material, Web API, Hangfire, SQL Server, MS Deploy, Ninject, EntityFramework, PetaPoco, Windows Server, IIS, MomentJS, Linq, Moq, xUnit, TeamCity, VisualStudio, Vim, YouTrack, Gulp

Other:

- Improved code quality and stability by gradually refactoring and adding new feature of companies one of the flagship products(Point of Sale) that spike the customer growth from 5 to over 120 in 6 months.
- Introducing database versioning and data migration facility from other product and also from old version of our product.
- Wrote the integration with Proximity Reader (Biometric and RFID) for attendance system and feed this data to the payroll system.
- Providing maintenance and bug fixes to company's legacy systems/products that are crucial to customers and their business.

Software Developer

2010 - 2012

Independent Developer

Project: Restaurant Management & Online Ordering System.

Developed a restaurant management system (RMS) with online ordering that is being used by over 50

UK restaurants

- Developed and evolved a touch based UI with winforms that workes with POS terminal by carefully overving usage pattern that user just love to use.
- Developed a MVC framework for winfoms and used in the application esuring clear speration of concerns.
- Integration hardware like POS printer, caller Id with COM, USB and serial ports,
- Using RCW(Runtime Callable Wrapper) interop.
- Implementing printer service using Thread and tracking fliors usins Loogin to EventLog
- Wrote a string utill library for crateing Text Based receipts
- Creatting installer with wix that creates the backend database and let's user configurate the system.
- Developed SPA application that talks to backend API using AngularJS and Angular Material that boosts user experience.
- Integartion with Paymentgateways reciving payment respose with web hooks using secure protocol and fail tollerent way and confirm the order.
- Importign postcode data from RoyalMail integrating with Map services to locate custoemr address from logitude and latitude
- Create windows service with topshelf that acts as a web server and host the online ordering application.
- Implemented a OAuth2 authorization/authentication using IdenentityFramework.
- Wrote in process CQRS backend using MediatR seperating Command and Query.

Software Engineer

2008 - 2010

C&E Software Solutions Ltd

- Wrote C# and winform applications that monitors hardware status, record sales, stock and billing to customer for a Drinking Water Plant and distribution company that surves over 20000 customer.
- Wrote advanced algorithms in C# to detect imminent system failure extracting various parameters from hardware log files, which were used within the application.
- Wrote a billing system for a supremarket using C#, .NET and Winforms that
- Enhanced, refined and customized C&E Hospital Management and C&E Accounting System for individual client needs and then worked with engineers to ensure successfull installation at client sites.
- Assisted in the design and development web based application for a money exchange company using PHP and MySQL.

WBT (WEB-Based Time and Billing) is a system for keeping track of time and expenses, billing, account receivables and reporting. This system will allow the user to enter time using a calendar will show the total of hours entered for each day and also will allow the user to inquiry all about a client and its matters. Information to be included will be: Time and Disbursements not in WIP, In WIP (Work in process), pre-bills in AR, all AR (Account Receivable) transaction.

Hobbies and Interests

- Reading code written by other programmers/developers on Github
- Reading/learning the history and evaluation of programming languages.

- Contributing to open source projects (I am also core team member of popular next generation single page application framework Aurelia)
- Playing with different programming languages (Currently Learning Rust),
- Working on my PET projects (currently designing height adjustable work desk using solidworks)
- Watching movies specially animation movies

Education

Metropolitan University – Sylhet, Bangladesh

2003 - 2007

B.Sc., Computer Science & Engineering

Natural Language Proficiency

Bangla: Good.

English: I can interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible (on both technical and non-technical subjects) without strain for either party.

Can produce clear, detailed text on a wide range of subjects and explain a viewpoint on a topical issue giving the advantages and disadvantages of various options.