Shuhel Ahmed

Sylhet, Bangladesh
Email: shuhel@ymail.com
Github: http://github.com/ahmedshuhel
Blog: https://blog.ahmedshuhel.com

Summary

- Full-stack software engineer offering 11 years of experience working in a variety of environments with a breadth of programs and technologies.
- 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.
- Experience in building high traffic web applications and APIs, large-scale data processing systems on the AWS Platform.
- Strong exposure to infrastructure orchestration tools (Ansible, Docker), and Linux as a programming environment.
- Proven track record in providing technical leadership.

Key areas

Enterprise Applications, Agile, Databases (SQL/NoSQL), JavaScript, 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: JavaScript, React, Aurelia, DurandalJS, AngularJS, Winforms, WPF.
Server Side: Python, .NET, Node.
Database: MS SQL Server, MySQL, MongoDB
Shell: Zsh, Bash, PowerShell, CMD
SCM: Git, Mercurial, Subversion
UI Prototyping: Axure RP
Operating System: Windows, Linux

Programming Language

Language	Level	Known since
Python	Professional	2013
JavaScript	Professional	2007
C#	Professional	2005
Typescript	Intermediate	2014

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

Experience

2016-Present
Senior Software Engineer, Tech Lead, Enginnering Manager
NewsCred Inc.

- Led effort in re-writing and improving core product area in Marketing Platform in ReactJS from AngularJS
- Developed NewsCred for Sales, an ABCM system, that helps the Sales Department engage with Leads and Opportunities via content.
- Developed an internal tool for tracking original content budgets, improving the productivity of the Editorial team by more than 70%
- Developed NewsRoom project which helped in tracking writing works and maintaining billing for writers
- Developed tools to measure Content Marketing maturity of customers, improving efficiency in deployment and program adoption.
- Created a data pipeline to export data from various internal API and 3rd party API to AWS Redshift. Then created data charts based on the pipeline data.
- Led the effort in splitting a monolithic system into independent microservices and gained speed of delivery.
- Wrote services and APIs on AWS EC2 using Django REST Framework, Flask, NodeJS, MySQL, and Elasticsearch, automated infrastructure management using Ansible, built CI/CD pipelines using Jenkins.
- Help NewsCred in managing its growing engineering team, coach engineers on improving their skills and helping them deliver value incrementally, own the team's technical backlog and partner with the Product Manager on planning activities.
- Line manage a group talented software engineers, guide them to perform on their highest potential and achieve their career goal by providing regular feedback and conducting one on ones.
- As one of the architects, consult and guide teams to build/design scalable system architecture, ensure the quality of delivery.

2012-2016
Senior Software Engineer
C&E Software Solutions

- Implemented a CI pipeline with TeamCity. Providing continuous integration and unit testing on .NET based projects which are used in the company's core product.
- Improved code quality and stability by gradually refactoring and adding a new feature for the company's major product (Point of Sale) that spiked the customer growth to over 600%.
- Implemented database versioning and data migration facility from other products and also from the old version of our product to a new version of the POS system.
- Wrote integration code for Proximity Reader (Biometric and RFID) for the Attendance system and fed this data to the payroll system.
- Provided maintenance and bug fixes to the company's legacy systems/products that are crucial to customers and their business.

Project: ERP

Developed and maintained an ERP solution for one of the largest government organizations 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, Point of Sale etc.

Highlights:

- Wrote a visual query builder and a search platform that operates on a highly de-normalized data repository containing a huge volume of data.
- Wrote high performance, secure and reliable REST-full Web API leveraging asynchronous programming.
- Developed task-based responsive UI, wrote highly reusable custom components using DurandalJS/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 POCO events/messages levering windows service and Topshelf.
- Wrote scaffolders in PowerShell and a helper framework that gave a 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.
- Wrote/implemented an algorithm in C# to arrange/sort c# DTO types/objects in terms of dependency during runtime that facilitated reliable change detection and updating/patching.

Project: Hospital Management System

Lead the development effort of company's flagship product, Hospital ERP. This complex system consists several sub modules including: OPD, IPD, Nursing Station, Admission, Emergency, OT, Day Care Center, Diagnostic Center, Follow Up and Prescription, MRD, MIS, and Accounting, Billing, Payroll, HRM etc.

Highlights:

- Led effort in requirement gathering and analysis by collaborating with domain experts and stakeholders
- Created a high fidelity mock up's using Auxre RP and shared with stakeholders and users to understand the true user experience.
- Developed SPAs (Single Page Applications) using AngularJS and Angular Material one per module
- Wrote and structured the backend API by isolating them into Bounded Contexts, delivered the API via Web API framework ensuring RESTfull characteristics.
- Integrated with OpenID Connect based authentication/authorization servers for single sign-on across multiple apps/submodules.
- Wrote printing services that enable silent printing for various receipts overcoming browsers limitation of handling printer directly.
- Improved database performance by analyzing frequent queries and creating indexes.
- Provided training to junior developers on TDD/BDD and other frameworks like AngularJS, Angular Material, ASP.NET MVC, etc.

Software Developer
2010 – 2012
PosCube(Independent Developer)

Project: Restaurant Management & Online Ordering System.

Designed and developed a restaurant management system (RMS) and integrated online order processing system that is being used by over 150 UK restaurants. The system is designed and optimized for POS hardware.

Highlights:

- Developed and evolved a touch-based UI with WinForms that works with POS terminal by carefully observing usage patterns - achieving a level of user-friendliness that sets us apart.
- Developed an MVC framework for WinForms with SPA like experience and used in the application.
  Integrated with hardware like POS printer, Label Printer, Caller Id via direct interfacing COM, USB, and serial ports interfacing as well as supporting OPOS standards via POS.NET.
- Wrote a string utility library for creating "Text Based" receipts.
- Created a windows installer for the application with WIX that also creates the backend database and let users configure the system during installation.
- Integrated with Payment Gateways - receiving payment response with webhooks using a custom protocol in a fault-tolerant way that confirms the successful order placement.
- Wrote code that imports Postal Code and Address data from Royal Mail and use that to integrate with Google maps.
- Created windows service with TopShelf that acts as a web server and hosts the online ordering system.
- Wrote in-process CQRS style backend using MediatR and delivered via Web API.
- Developed tablet-based companion application to take dine-in orders.

Software Engineer
2008 - 2010
C&E Software Solutions Ltd

- Wrote C# and WinForms applications that record sales, monitor inventory, keep customer ledger, and bill customer for a drinking water plant and distribution company that serves over 20000 customers.
- Wrote advanced algorithms in C# to detect imminent system failure by extracting various parameters from hardware log files, which were used within the application.
- Wrote a utility billing software for supermarket/shopping centers using C#, .NET, and Winforms.
- Assisted in the design and development web-based application for a money exchange company using PHP and MySQL.
- Enhanced, refined and customized C&E Hospital Management and C&E Accounting System for individual client needs and then worked with engineers to ensure successful installation at client sites.

Open Source

- Core team member of Aurelia Framework
- Contributed to Aurelia, JSPM, SystemJS, SystemJS Builder, Fluent Migrator, Humanizer etc.

Hobbies and Interests

- Contributing to open-source projects.
- Reading code on Github, reading/learning the history and evolution of programming languages.
- Movies and Music.

Education

Metropolitan University – Sylhet, Bangladesh, 2008
B.Sc., Computer Science & Engineering