
MUHAMMAD AMAD MALIK

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INTRODUCTION

Creative and Certified technical professional having more than five years of experience. Currently, I am working at CureMD in the capacity of technical lead for an advanced Integration solution for healthcare systems.

PROFESSIONAL CERTIFICATIONS/COURSES/TRAINING

• **Developing ASP.NET MVC Web Applications (Exam 70-486)**

Scored 88.8%

<https://www.microsoft.com/en-us/learning/exam-70-486.aspx>

Apr '2019 ^D

PROFESSIONAL EXPERIENCE

Jan'20- Till Date **Freelancer**

Oct '17 – Jan '20 **Technical Lead / Associate Solution Architect**
Universal Digital Healthcare.

June '17 – Oct '20 **Team Lead**
CureMD (Pvt) Ltd.

April '15 – June '17 **Software Engineer**
Adnare (Pvt) Ltd.

EDUCATION

2012 - 2016 **BS (Software Engineering)**

PUCIT, Lahore, Pakistan

[CGPA 3.36](#)

2010 - 2012 **Intermediate (Fsc. Pre Eng.)**

PGC, Lahore, Pakistan

[A+](#)

2008 - 2010 **Matriculation**

GHS NWL, Pakistan

[A+](#)

TECHNICAL EXPERTISE

Languages C#, JavaScript

Frameworks & Architecture .NetCore, Asp.Net, WebForms/MVC, Angular, SSRS, OAUTH/OpenId/SAML, X12/HL7, KendoUI, Ado.Net, Entity Framework, Windows Service, Rest/Soap Services

Tools Visual Paradigm, MS Visio, VSCode, Visual Studio, MS Project, Quality Control, Redmine, Mirth, Asp.Net Maker

Databases MS SQL, My SQL

Servers IIS, Kestrel

Remote/Freelance Contracts.**(2020 – Continued)****• NextGenSecurity**

This is a cloud-based solution, which manages the day-to-day task of security contract firms. Participated in designing and implementing the system use cases and coordinated a remote team to meet the goals.

Azure AD B2C was implemented to utilize the services offered by Microsoft Azure.

Microsoft Graph API SDKs were implemented for connectivity.

Microsoft Azure Storage Services were used for directory management modules.

Geo Location Apis were integrated to implement Client/Guard specific use cases.

SecurionPay was integrated as a payment gateway.

The system was hosted in the Cloud as a **service** and the '**Azure SQL Database**' service opted for hosting the data in a very cost-effective solution to ensure high availability and security.

Technologies: *Asp.Net, .Net Core, Microsoft Azure, Asp.Net Web Api, C# Angular 7, Kendo, SSRS*

LiveStock Management system

This is an advanced WEB-based system that manages the day-to-day tasks of the livestock. I have designed, implemented, and delivered this system and supervised a team of 3 developers for this.

Modules: *Inventory, Payroll, Feeding, Animal Breeding, Animal Treatments, Finance management*

Technologies: *Asp.Net, .Net Core, OAuth/IdentityServer4, MS SQL, ADO.NET, Asp.Net Web Api, C# Angular 7, Kendo, SSRS*

Organization: CureMD (PVT) Ltd.**(June 2017 – Jan 2020)****• InterfaceHub****Dec '17 – Jan '20**

This is an advanced centralized WEB based system, which acts as a clearinghouse and bridge between different HealthCare systems especially 'PMS/EMR/HIE/Labs/state Registries' to overcome the integration problems and smooth data flow in and out of any system connected to the InterfaceHub.

Components: .Net Web Api as backend services, IdentityServer4 for authentication, Front End portal in Angular7

Technologies: *Asp.Net, .Net Core, OAuth/IdentityServer4, MS SQL, ADO.NET, Asp.Net Web Api, C# Angular 7, Kendo*

Role: *I started this project from the requirement elicitation/extraction phase and designed a proposed solution in close coordination with VP architecture. During the design phase, we followed proper software engineering techniques and documented each design phase in UML. The design artifacts included Case studies, Requirement documents, Component Diagrams, Sequence diagrams, Class diagrams, and ERD. My contributions and responsibilities include but are not limited to*

- Design architecture and framework of the InterfaceHub system by working in close coordination with the architecture team and other stakeholders.
- Presenting solutions to the design problems and business requirements.
- Designing Real-time and Delayed Transactions architecture
- Optimizing HL7 EncoderParser Library for real-time transactions.
- Leading and managing a team of four resources to develop the approved design.
- Implementing OAuth and later updated to IdentityServer4.
- Designed and Implemented XDS.b transactions in InterfaceHub and CureMD EMR featuring SAML as an authentication/authorization mechanism.

CureLink

June'17 – Jan'20

CureLink is the predecessor of InterfaceHub. A window service-based system is deployed and run separately on each server, enabling the CureMD application to integrate with different HealthCare systems.

Technologies: Asp.Net, C#, WCF, MS SQL, ADO.NET, React

Role: I started this project as a software engineer and integrated various HealthCare systems with CureMD EMR using CureLink. Now InterfaceHub is replacing this application as existing interfaces are being migrated to InterfaceHub.

- Maintaining & enhancing CureLink to resolve regression issues.
- Implement interfaces for new partners according to specs as InterfaceHub was in design phase
- Train junior resources on CureLink communication and processing algorithms as it was based on direct usage of .Net reflection
- Performance optimization and Client Support

CureMD EHR (Advanced Electronic Health Record system)

June'17 – Jan'20 ^C

CureMD EHR is ONC 2015 Edition certified and is MIPS, Meaningful Use Stage 2, and Meaningful Use Stage 3.

Technologies: Asp.Net, C#, WCF, WebForms, Classic Asp, JS, JQuery, MVC, MS SQL, ADO.NET, Entity Framework

Role: I started this project as a software engineer and integrated various HealthCare systems with CureMD EMR using CureLink and Interface Hub. I am working in the capacity of team lead for Immunization and integration modules. My contributions and responsibilities include but are not limited to

- Maintaining and enhancing the immunization module.
- Implementing interfaces with Immunization registries, labs, PMS, and EMRs for data sharing purposes, **HL7 Messages** include ADT, SIU, DFT, VXU, QBP, RSP, ACK, OUL, ORM, and OML
- Developing client-requested/Business-Driven features to comply with modern healthcare needs
- MU3-compliant specs implementation for HL7 transactions.
- Designed and Implemented **XDS.b transactions** in InterfaceHub and CureMD EMR with SAML as an authentication mechanism.
- Designed and implemented **InterfaceHubTransactionManager**, which enables CureMD applications to communicate with InterfaceHub

CureAnalytics

Nov'18 – Dec'18 ^C

A feature projection application based on IIS Logs that enables technical leads to troubleshoot non-reproducible issues, extract various reports to view user journey/usage, and enhance application features depending upon user behavior

Technologies: Asp.Net, MS SQL, ADO.NET

Organization: Adnare (PVT) Ltd.

(April 2015 – June 2017)

ClearPathMD Practice Management

April'15 – June'17 ^C

ClearPathMD is a HIPAA-compliant practice management system.

Technologies: Asp.Net, C#, WCF, JS, JQuery, MVC, MS SQL, Entity Framework, KendoUI

Role: I started this project as an associate software engineer and started my career. I implemented new modules along with maintenance of existing features for more than 2 years. I also contributed as a software configuration engineer and release manager for the ClearPathMD application. My contributions and responsibilities include but are not limited to

- Auto Payment Posting module of ERA
- Integration with **Practice Insight Clearing House** for claim scrubbing and claim submission.
- Parsing Encoding wrapper libraries for EDI Standards like HL7 and X12.
- Worked on **X12 Eligibility Request/Response(270/271)** Transactions
- Worked on **X12 837 and 835** Transactions
- Appointment Scheduling interface integration using HL7 standards(**SIU**) with various partners
- Patient Demographics interface integration using HL7 standards(**ADT**) with various partners
- Financial Transaction interface integration using HL7 standards(**DFT**) with various partners
- SQL Server Reporting for Business Intelligence
- Software Configuration Management and customer support
- User Productivity reports and analysis.
- Implemented more than 50 business Use Cases

gnare EMR(Electronic Medical Record)

Aug'16 – Jan'17 ^A

Technologies: Asp.Net, C#, WebForms, JS, JQuery, MS SQL, Entity Framework, KendoUI

Role: I started this project as a software engineer under the supervision of technical leads and other team members. My contributions and responsibilities include but are not limited to

- Designed and implemented Architecture for Popup, as it is an **SPA**.
- Worked on Progress Notes
- Converted UI to use Kendo Control instead of .Net Controls
- Implemented more than 15 Use Cases

Claim Accountability and Tracing System (CATS))

May'16 – Aug'16 ^C

This is a supporting application, which integrates with different healthcare systems to track the claim aging process and process those claims.

Technologies: Asp.Net, .C#, Asp.net Maker, MVC

Role: This project was built using Asp.net Maker and I contributed the following

- Implemented Claim Aging and Follow-up
- Implemented User Productivity report.
- Implemented more than 10 use cases.
- Client Invoicing module integrated with QuickBooks