# **Chirag Doshi**

Sr. Software Test Development Engineer

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# **Primary Objective**

Senior Software Developer for the last 28+ years, developing business oriented distributed enterprise software solutions for products in engineering, research and financial data-oriented applications. Proven ability in applying technology to different business domains with emphasis on problem solving and designing solutions for technical problems. My goal is to be a generic expert in software tools and technologies keeping ahead with extensive self-study-based training in newer technologies, eventually growing into a primary project manager role driving technological changes within an organization.

# **Professional Membership & Certifications**

* Microsoft Certified Technology Specialist - .Net Framework 2.0 Windows Forms 2008), Distributed (2008) and Web (2009) Applications
* Sun Certified Java 2 Programmer & Web Component Developer (2001)
* ACM Professional Member Since 2009

# **Education**

Masters & Bachelors from an accredited university abroad in Biomedical & Electrical Engineering- 1994 & 1992

# **Programming Qualifications**

* + - Programming Languages
      * ANSI C/ANSI C++/VSC++ - 8 years
      * VB6 - 5 years
      * Java - 4 years
      * C# - 15 years
      * VB.Net – 6 years
      * .NET CLI/C++ - 4 years
    - UML & Data Modeling – 14 years
      * SQL Server Data Modeling – 9 years
      * Erwin – 1 year
      * Rational/XDE – 1 year
      * Visio – 6 years
      * Enterprise Architect Modeling Tool – 4.5 years
      * LINQ SQL / Entity Framework (3/6) - 6 years
    - Graphics Programming - 13 years
      * Win GDI 16, GDI32 – 7 years
      * .NET GDI Plus – 3 years
      * Java 2D API - 4 years
    - Net Frameworks 4.5/4.0/3.5/2.0/1.1 – 11 years
      * Web Services & Network Programming - 6 years
      * WPF & WCF Programming – 4 years
      * ASP.NET/VB.NET/C# – 10 years
        + MVC (2,3,4,5) – 3 years
        + ASP.NET Core – 2 years
    - Scripting Perl/JavaScript/Python – 6 years
    - Source Control Tools: VSS, CVS, Perforce, TFS, SVN, GIT
    - Defect Tracking Tools: Numega Software, Rational, Sea Pine, TFS, JIRA, Test Rail
    - Testing Tools: N-Unit, J-Unit, Visual Studio,

Enterprise Architect, Test Rail

* + - Java EE Programming
      * Java J2EE Version 2.0-4
      * Java JNI C++ - 2 years
    - Database Programming
      * SQL Server /TSQL – 11 years
      * Oracle SQL– 4 years
      * MySQL – 2.0 years
      * SQL400 - 6 months
    - Mobile Computing
      * Linux Android Debugging C++ - 4 years Linux
      * Android Java Apps – Product Testing – 4 years
    - Medical Device Documentation
      * Beckman Coulter QMS system
      * Dexcom Oracle Cloud Systems
    - Machine Learning & Computer Vision – 8 years
      * Feature descriptor object detection with Open CV
      * Mean and Standard Deviation
      * Various filtering operators
      * Deep Learning
        + CNN & MLP Backpropagation NN
      * OCR Detection with EMGU & Iron Software
      * EMGU for .NET – Various Algorithms
      * Morphological Image processing of cornea cells
      * Object Labeling algorithms
    - Trained in AI using Generative AI Systems and LLM

# **Work Profile**

**Senior Software Test Development Engineer**

**Dexcom (09/14/2020 - Present)**

**Dania Beach, FL**

* Design of Automation Test Sequences for a CGM Decom One, G6, G7 product lines from QMS Medical Device Documentation for enhancing the overall quality of the product
* Enhancements, design and development using Angular Node JS scripting for project management of Automation and Test software releases
* Developing extensive automation tests for Windows Applications based internal tools using Appium Server with Windows Driver. These tools are validated and approved for use with Product Automation and Testing and are formally documented.
* Design and implementation of tests using NET NUNIT Framework and Visual Studio C# for G6 and G7 Receivers Firmware User Interface and Back End Dexcom One, G6, G7, Sensor Support.
* Writing extensive utilities for supporting test framework using PCCOM device command interface, EMGU, Iron OCR/XL Software, .NET Security with semi-automated workflow in a team
* Working across the product feature matrix to identify automatable/manual scripting tests and designing tests from SDS and SRS specifications
* Reporting test results on internal Myna Portal Scrum Process support website built with Angular JavaScript, conducting and reporting in scrum meetings daily.
* Testing with various internal/external test tools such Secured Receiver Tool Application (SRTA) for viewing live receiver data, Test Data Viewer for sensor format data, Quasar tool for viewing Sensor live data and NTerra for viewing COM Port Logs data.
* Programming hardware fixtures for hosting simulation of live sensors for executing informal and formal testing plans and protocols for Receiver Firmware
* Coordinating and Documenting Product Automation Test Releases on Oracle Fusion Cloud Tools for QMS
* Working across the product feature matrix to identify automatable tests, and designing the tests from SDS and SRS specifications with Visual studio 15/17/19/22 and C#.
* Collaboration across cross functional teams on resolving issues with Receiver, Sensor and test tools validation and approval for testing
* Extensive Collaboration with Receiver Dev Team and Abstract UI team on adapting OCR technology
* Dexcom continuous education program on new procedures laid down by Dexcom Learning Center Documentation and complying with these procedures for ongoing medical device product documentation
* Providing post release support for Automation test results along with training exposure to new team members. Developing onboarding documentation instructions providing quick learning path to new team members.

Software: JIRA Atlassian, Confluence Atlassian, Medical Devices Standards, Angular, ASP.Net Core API Services, Windows 10 - 64-bit, GitHub Repository.NET Framework 4.7.2,Visual Studio .NET 2015/2019/2022 C#, Open CV Library 3.4, Iron Software OCR Library with multiple language packs, Python 3.6, Nordic JLink Interface Command line 10.12.1, Zephyr OS C/C++ Code Reading, Java Automated CI/CD Testing Android ADB tools, Appium, Server 2.4.1, GHA for Automation CI/CD and Appium Tools, Test Rail, Dexcom and Linked In Learning

**Remote Software Engineer**

**Netra Systems (07/25//2020 – 12/31/2020)**

**Pleasonton, CA**

* Providing programming support for Spectra-OCT technology for acquiring and extracting the image of eye retina cross sections and recreating the entire area of tissue using image processing algorithms with Nvidia GPU based parallel programming Cuda Toolkit 8.0 integrated with open GL GLUT library for accelerated display of high refresh rates, for Netra Systems Product

Software: Windows 10 - 64-bit, GIT Repository, Visual Studio 2019 MFC C++, Open CV Library 3.4, MATLAB/Python 3.6, Sapera Lib for device interface, GLUT Open GL C/C++ Library, NVIDIA GPU Card RTK/GTK based parallel programming using Cuda Toolkit 8.0

**Senior Software Engineer**

**OSI Engineering (05/2017-04/2020)**

**Client: Magic Leap**

**Plantation, FL**

⦁ Design of Automation Test Sequences for an AR product line from QMS requirements for enhancing the overall quality of the product

⦁ Designing and Implementing Automation test processes using Windows 10 & Visual Studio C#.

⦁ Designing machine learning methods using OpenCV and EMGU for .NET library for running automation test sequences with deep learning libraries using python.

⦁ Developing C# tests using Automation Framework and Android-Linux like proprietary command line scripting support

⦁ Analyzing automation test results in a software quality web portal for PIs and Reliability tests

* Source code management using GIT Repository & Gerrit tool

⦁ Extensive debugging using ATRACE tools and Visual Studio tools, working with developers to identify integration issues and system level bugs and verifying fixes

⦁ Working across the whole product feature matrix to identify automatable tests and creating the automated tests which includes visual graphical apps, cloud, profiles and security.

⦁ Providing 24x7 support for tests running in Automation and reporting issues, along with training exposure to new recruits

Software: Windows 10 - 64-bit, GIT Repository.NET Framework 4.7.1./.NET Standard Core

2.1, Visual Studio .NET 2015/2017/2019/2022 C#, EMGU Open CV Library 3.2.0.2, Git & Gerrit tools, Python 2.7 and 3.6, OpenCV, Test Rail

**SQL Developer – Business Client**

**The Watersheds Treatment Programs (11/2016 – 03/2017)**

**Delray Beach, FL**

⦁ Design and re-engineering an existing MS Access based GUI to .NET platform using

VB.NET deployed in a Citrix Network Environment

⦁ Developing documentation and deploying source builds via TFS on test machines

⦁ Providing training to QA team members on new features testing

Software: Windows 7 - 64-bit, TFS 2013 .NET Framework 4.5.1, Visual Studio

VB .NET 2015 C#, Visual Studio TFS 2015 on Windows 2012 R2 Server, Entity

Framework 6, Telerik WinForms Lib. Version 2017, SQL Server 2008 R2

**Windows Developer**

**KForce (07/2016-09/2016)**

**Client: Crossmatch Technologies**

**Palm Beach Gardens, FL**

⦁ Researching requirements for a finger print detection hardware product test procedures compliance in a scrum team. Sensor data acquisition for calibration purposes using statistical parameters and configuring the sensor for finger printing with various level of water saturations

⦁ Providing improvements to noise detection methods and streamlining calibration process automation. Integrating a mix of unmanaged C++ and Managed .NET libraries for reuse across projects and different versions of visual studios

⦁ Providing training and demo to test users in remote teams

Software: Windows 7 - 64-bit, TFS 2013 .NET Framework 4.5.1, Visual Studio .NET 2013/2015 WPF C#, Visual C++ 2013 and MFC, Android SDK & ADB Device Drivers, MIDL COM SDK/ATL, Visual Studio TFS 2013.

**Senior Applications Developer**

**Hotwire Communications (09/2015 – 07/2016)**

**Miami, FL**

⦁ Researching and proof-of concept for integrating Google Chromecast Devices in a Mobile

Development environment using Ericsson Media Room Personal Server Products

⦁ Developing cutting edge, robust and scalable TV applications for Hotwire FisionTV with Windows Web based Ericsson MPF ADK library for device Apps, for various device profiles and themes. Gathering requirements from Team Lead and providing proof of concept with prototypes for Google Chromecast devices. Developing intermediate web applications using ASP.NET MVC loading using MRML on STB.

⦁ Providing Subscriber Data interface web pages from Set top box devices (PACE &

CISCO) with ETI & Ericsson MPF Web Services Components

⦁ Leading coordination for obtaining SRS requirements from remotely located team and demonstrating application prototypes along with manager to remote team product manager

Software: Windows 7 - 64-bit, .NET Framework 3.5/4.0/4.5.1, MS Office 2013, Visual

Studio 2012 C# ASP.NET MVC3, MS SQL Server 2012R2 VISIO 2010, Java Script, CSS, HTML. Restful APIs, SOAP APIs, Windows OS, TFS, IIS & Media Room ADK

**Senior Systems Analyst**

**RSI (02/2015 – 05/2015)**

**Miami, FL**

⦁ Design and analysis of RSI Member communications functional requirements for RSI Web applications in a supplier chain services and Daily Agile Scrum Environment

Software: Windows 8.1 - 64-bit, .NET Framework 4.0/4.5.1, MS Office 2013, Visual

Studio Ultimate 2013 Vb.NET/C# MVC4, SQL Server 2014, VISIO 2010 & Team

Foundation Server (TFS 2013), Sitefinity CMS

**Senior Software Development Engineer**

**Kelly Services (06/23/2014-10/31/2014)**

**Client: Danaher Business Systems (Beckman Coulter)**

**Kendall (Miami), FL**

⦁ Collecting, Interpreting and documenting system requirements for universal data collection of production manufacturing & manufacturing inventory of medical products using documenting version control & release systems in a TFS based CMMI environment and evaluating design options for front end database manufacturing inventory data collection and reporting applications

⦁ Summarizing and presenting details of designs, analytical methods and results using

Visio Modeling and SQL Server database modeling tools in an Agile environment

⦁ Designing, Architecting and Developing UML Diagrams for universal data collection methods of process of product inventory items and training, using Visio, VB.NET, C# .NET Framework, office inter-op and SQL Server 2008

⦁ Evaluating designs for software development process improvement, effective defect tracking and managing life cycle of enhancements/defects using integrated test environment, using design control process templates from TFS

⦁ Detecting Training requirements for different users from software and providing training on using the software

Software: Windows 7 64-bit, .NET Framework 4.0, MS Office 2010, VS 2010 VB.NET/

C#, SQL Server 2008 R2, VISIO 2010 & Team Foundation Server (TFS 2010), Share

Point QMS & CMS Intranet, MS office Inter-Op PIA libraries, C++

**Senior ERP Applications Developer**

**Blue Horizon Tek Solutions (03/2014 – 05/2014)**

**Client: Valley Forge Fabrics**

**Fort Lauderdale, FL**

⦁ Gathering Business requirements & designing a web portal for company vendors for managing purchase orders from SYSPRO ERP system , based on version 1 website

⦁ Migration of web portal version 1 web site from classic ASP VBScript to ASP.NET Framework 4.5 in VB.NET/C# and enhancing classic ASP website

⦁ Testing & Optimizing SQL Server stored procedures for improving performance using execution plan statistics and dataset optimizations

⦁ SYSPRO ERP training and integration of new views into the system

Software: Windows 7 64-bit, .NET Framework 4.5, MS Office 2010, VS 2012 VB.NET/ C#, SQL Server 2008 R2, SYSPRO ERP 6.1 Client, VISIO 2010 & Entity Framework

(LINQ-SQL) Objects, JavaScript Angular JS, ASP/VBScript, jQuery

**Senior Applications Developer**

**Fahrenheit IT Solutions (11/2012 – 02/2014)**

**Client: Silver Airways**

**Fort Lauderdale, FL**

⦁ Business requirements gathering for reports and messaging systems, providing estimates and implementing each of the project through Software Development Life Cycle (SDLC) to completion in an Agile environment

⦁ Reverse Engineered data flow models of a multi-component Airline ticketing and reservation system written in VB.NET

⦁ Developing design solutions using custom SQL SSRS report builder reports for flight data quality management SABRE reports

⦁ Developer HR tracking software for pilots and air-crew using ADP input file and specifying rules using XML with VB.NET application

⦁ Developing and integrating IBM MQ Series messaging queue with WCF MQ Channel Windows Client for Flight Messaging and Tracking systems, and integrating it with windows service host architecture

⦁ Presenting designs and training SABRE personnel on using flight reporting features

Software: Windows 7 64-bit/32-bit, .NET Framework 4.0/3.5, MS Office 2013, VS

2012/2008 Share Point Reporting and CMS, WPF WinForms, C#, WCF Data Services 3.5, IBM MQ Channel Web Client 7.1, SQL Server 2008 R2, SSRS, Report Builder 3.0, VS BIS 2008, SVN, VISIO & MS Office 2013, Attachmate, Entity Framework (LINQ-SQL) Objects, COM, JavaScript

**Senior Consultant**

**Artgun Technologies (08/2011-12/2012)**

**Weston, FL**

⦁ Enterprise modeling of business data solutions and providing back-office web applications and web services

⦁ Developed a WPF & Windows forms & custom data grid view-based Order dropping & tracking an order through warehouse management system

Software: Windows Vista/XP/Server 2008, Enterprise Architect, SQL Server 2008

R2, .Net Framework 4.0/3.5, Proprietary CMS, Visual Studio 2010, Iron Speed

7.02, Adobe Photoshop Flash, Web Services 2.0, Enterprise Architect 7.2, WPF

C#/VB.NET/C++, MS Office, ERP Apparel Magic with FileMaker Professional,

PHP, HTML 4.0, Java Script 1.2, XML, WCF Data Services 3.5, ASP.NET MVC 3.0, LINQ-SQL Model (.NET Framework 3.5)

**Senior Developer,**

**Modis (06/2012-10/2012)**

**Client: COMCAST**

**Sunrise, FL**

⦁ Designing a presentation tier browser client application custom web browser control and a middle tier remote proxy application using COM Inter-op Architecture for communicating with a remote legacy web site via java script

⦁ Code review and training colleagues on the new implementation

Software: Windows XP, Visio 2007, .NET Framework 4.0, VS 2010/C#, AWD Script

Debugger, TFS, Fiddler2, HTML, JavaScript, CSS and .NET Framework

4.0, Fiddler2, IIS, ATL/COM/C++

**Senior C# Programmer**

**TLO (02/2012-05/2012)**

**Boca Raton, FL**

⦁ Designed and developed Graphical WPF Reporting Application Custom Components using TELERIK Charts, NET Framework 4.0/3.5 and MVC Design Pattern, for trending business and user data

⦁ Developing Parallel Data Processing Scripts using Proprietary Command Macro Scripting

Language (BOLT) using Linux C/C++ Macro language commands for BOLT script

Software: Windows 7, UBUNTU Linux, VS 2010/C#, WCF Data Services 4.0, GNU C/C++, SVN, PERL, MySQL, TELERIK Custom Controls, and DevArt MySQL Entity Framework 5.0

**Senior C# .NET Developer**

**Direct Insite Corp (08/2011 – 01/2012)**

**Delray Beach, FL**

⦁ Product review and research of an existing SAP system for processing order Invoices data and payments in a multi supplier – multi vendor-based MIS system

⦁ Designing distributed SOA based WCF Reporting services with flexible deployable endpoints configuration using VS 2008 custom service templates and .Net stock trader configurations

⦁ Designing, developing, testing and enhancing scalable, high-performance, multi-tier applications using C#. ASP.NET and WCF Data Services

Software: MS Office 2010, Windows 7, VS 2010 C#, Visio 2010, Seapine Defect

Management Software, DynaSoft VSS, MS Project, MSDN, SQL Server 2008 R2,

Enterprise Architect, SharePoint CMS, WCF Data Services 3.5 (REST Soap

Services), CSS Themes, HTML 4.0, Java Script 1.2, XML, Adobe Photoshop 10, COM, Java Script

**Database Manager**

**Artgun Technologies (03/2009-08/2011)**

**Miami Lakes, FL**

⦁ Business and functional requirements analysis of a customer driven website for printing a shirt and placing online orders in a few clicks

⦁ Enterprise modeling of business data solutions and providing backoffice web applications and web services

⦁ Designing and modeling a retail orders workflow for integrating orders data with a data warehouse management system using Enterprise Architect and providing day to day and closed form solutions for orders data integrity

⦁ Extracting Order Data from existing workflow using Office Excel Components and merging the orders to reorganize data into a structured RDBMS workflow for managing life cycle of an order in a WMS Data store

⦁ Developing and enhancing existing web applications and source baselines in VS 2008 ASP.Net C#, VB.NET

⦁ Providing Support for day-to-day warehouse data load and QA activities working with

CTO and resolving integration issues with third party vendors

⦁ Deploying and training warehouse personnel on using the web software

Software: Windows Vista/XP/Server 2008, Enterprise Architect, SQL Server

2008/2005, .Net Framework 4.0/3.5/2.0, Proprietary CMS, Visual Studio

2010/2008, Iron Speed 7.02, Adobe Photoshop Flash, Web Services 2.0, Enterprise

Architect 7.2, MS Office, ERP Apparel Magic with FileMaker Professional, PHP, HTML

4.0, Java Script 1.2, XML, WCF Data Services 3.5, ASP.NET MVC

3.0, CSS, PERL, Adobe Photoshop 8, Schema Datasets & LINQ Entity Framework Model (.NET Framework 3.5)

**Senior Software Engineer**

**Alber Corp (11/2006-03/2009)**

**Pompano Beach, FL**

⦁ Modeling, Reengineering, designing and prototyping Battery Monitoring Products legacy software components from Delphi C++ to .Net Framework 2.0

⦁ Designing animated custom control components usually not available from any vendors with .Net graphics objects with full designer support – Animated tree view control

⦁ Developed Data Grid View & Charting components for .NET, enhancing and integrating third party charting components into MVC design pattern-based views

⦁ Providing training to other developers and conducting code reviews in a team

Software: Windows XP/Vista, .Net Framework 3.5/2.0 C#/VB.NET, Visual Studio 2005,

Perforce, Enterprise Architect 7.0, Soap SDK 3.0, .NET Framework C# Remoting

2.0, XML, XQUERY, Sync Fusion Charting Components, VS2005/C++. Sea Pine

**Consultant**

**Insight Global (06/2006-08/2006)**

**Client: Citrix Systems**

**Fort Lauderdale, FL**

⦁ Enhancing existing product releases based on custom graphical component frameworks for Citrix Presentation Server

Software: Microsoft Windows XP/Server 2003. Net Framework, Visual Source Safe,

Visual Studio 2005/C#, MMC IExtensible framework C++, Share point CMS

**Consultant**

**IIC (09/2005-05/2006)**

**Client: Wildcard Systems & EFunds (FIS)**

**Sunrise, FL**

⦁ Business requirements analysis of financial reports for a credit card accounting application

⦁ Daily Agile Scrum Sprints and Client Support

⦁ Creating financial banking reports and integrating it into a report stream

⦁ QA & Testing for data errors using distributed databases and programming components

Software: Lotus Notes 6.5, Windows XP, SQL Server 2000, Visual Studio 6.0, Perl 5.6,

Rational Clear Quest, ASP 2.0, VB 6, COM+ Distributed transactions API, HTML 3.0, Share point CMS, C++

**Senior Business Programmer Analyst**

**Assurant Solutions (07/2005 – 09/2005)**

**Miami, FL**

⦁ Business requirements analysis of an insurance accounting and report warehousing application

⦁ Programming & porting graphics files (jpeg/png) from VB6 Web studio to VB.NET web application

Software: Windows 2000, Oracle Data Provider 2.0, Visual Studio.Net/Rational XDE

Integrated Modeling, Oracle 9.0, C#, VB.NET/ASP.NET, VBScript/ASP, Java Script

**Developer**

**Siva Corp (12/2004 – 04/2005)**

**Delray Beach, FL**

⦁ Designing user interface and modeling database schema from product requirements specifications using Java Beans, Swing and 2D Graphics API & Programming with JPEG/BMP/TIFF graphics

Software: Windows XP, Java. JSP, JavaScript 1.2, XML, HTML 3.0, JBuilder

Foundation 10.0, Mascon MYSQL, Erwin, JSwing MVC

**Business Contractor**

**Media Vue Solutions (11/2004 – 11/2004)**

**Fort Lauderdale, FL**

⦁ Developing a quality manual and integration test plan, for deployment and regression testing a point-of-sale system on different operating systems

⦁ Training developers on QA process and testing

Software: Windows XP, Win2K, Win98, MS SQL Server MSDE, VB6, VB/WinSh Script

Business Contractor

Jumpstart Wireless (09/2004 – 10/2004)

Delray Beach, FL

⦁ Developing and implementing a pluggable mediating connector solution for transforming device data to legacy data format

Software: Windows XP, Java/J2EE, SQL Server 2000 Personal Database, Primavera, Java Script 1.1, XML, HTML 2.0

**Developer**

**TekSystems (07/2004 – 08/2004)**

**Client: EDiets**

**Deerfield Beach, FL**

⦁ Design of a scalable 24/7 gateway proxy for submitting payments to a remote merchant service.

⦁ Training end users to use the developed software services

Software: Windows XP, Visual Studio 2002 VB.NET, SQL Server 2000, Java 2SDK, Java Script 1.1, HTML 3.0

**Developer Contractor**

**The Resource Group (03/2004-06/2004)**

**Client: CyberGuard (Mcaffe)**

**Fort Lauderdale, FL**

⦁ Web based remote firewall management software analysis for compliance with enforcement standards at basic and medium level protection profiles, and developing specimen programs for demonstrating compliance with benchmark certifications.

⦁ Training QA team to use test descriptions and configuring tests for them

Software: Windows XP, MS Word, Visual Studio .NET 2002 C++, Java, JSP, Servlets, Linux Perl/C++, JBuilder 6. 0, Perforce 1.0, Java Script 1.2, XML, HTML 3.0, PERL, Linux

Firewall Software Product

**Senior Software Engineer**

**Trendium (06/2003-12/2003)**

**Sunrise, FL**

⦁ Modeling, developing and delivering graphical user interface features for web product releases

⦁ Extending service frameworks using design patterns viz. page controller, decorator, observer façade, and MVC patterns and Java 2D Graphics API

⦁ Integrating graphics files from various sources into web applications

⦁ Training QA team on using the software and testing

Software: Windows XP/2000/Solaris 8, Rational Rose Enterprise Edition, JAVA 2.0

JSP EJB JNI Apache Tomcat, Oracle 9.0, Java Script 1.1, HTML 2.0, Solaris Java, Net Beans 1.0