

## **Career Summary:**

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11+ years of experience in the software test automation in, robotics process automation and quality assurance industry with strong technical and educational background. Hands on experience with testing of enterprise applications, safety critical embedded products, web applications, mobile apps and automation of both Desktop and Web based applications using Selenium, TestComplete and QTP (UFT).

Specialties: Software test automation, Software testing, Standard Compliance, SDLC, Project management, Client management and Team management.

## **Key Skills**

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### *Technical skills*

Software Development Life Cycle	Experienced in working with different development models and processes ranging from biweekly sprints to one year long iterative models with complete documentation as per ISO standards.
Software test automation	<p>Delivered automation framework and automated test cases suite of Dot Net Application using QTP and written test scripts to analysis 200000 lines of code by using LDRA Tool suite.</p> <p>Pioneered End to End Automation of Complete Financial Suite having more than 700 screens and 4000 test scenarios using TestComplete &amp; Advanced Keyword / Action Driven Framework.</p> <p>Automation of Web application handling more than 700 objects/ screen using Selenium &amp; Java.</p> <p>Automation of Real Estate web and mobile applications with dynamic data verification on the fly using Selenium, Java &amp; extent Reports.</p>
Machine Learning	Implementation of test-prioritizing routine, selecting failure prone tests to be executed first and report failure earlier than any queue or stack-based implementation
Artificial Intelligence	AI usage for selection of test suites based on identification of codes changes and tightly coupled modules, create a dynamic acceptance test suite on the go.
Standard compliance	In depth understanding of testing requirements and complete project documentation as per ISO 9001. Worked on European rail applications by using CENELEC EN50128 standard guide lines. Worked on European industrial automation applications by using EN13849-1 standard guide lines, Worked on European gas sensing applications by using EN50271, EN50402 and EN61508 standard guide lines. Worked on North American Boeing application by using RTCA DO-178B standard guide lines.
Software testing	Experienced in functional testing, safety testing, compatibility testing, performance testing, static and dynamic analysis, error seeding and boundary

value analysis for embedded, web and mobile applications.

### Management skills

Project management	Involved in initiation, planning, executing, monitoring and controlling process group operations. Managed project review processes by creating, monitoring and controlling processes for Software requirements reviews, architectural reviews, design reviews, module design reviews and code walkthroughs.
Client management	Experienced in executing projects with engineering departments of multiple MNCs from Europe and America.
Team management	Experienced in managing team of 13+ resources, maintaining succession plans for SQA department, team formation for upcoming projects including recruitment and training.
ISO Audits	Participated in ISO audits and represent Software Quality Assurance processes.

### Achievement

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- ✓ Successfully delivered and closed 11 projects ranging from 500 to 5,000+ man hours.
- ✓ Successfully got functional safety approvals from SIRA, TUV, EBA and exida organizations.
- ✓ Within 6 years leading SQA team of 13 resources and got three promotions.
- ✓ Pioneered Functional Automation department (R1) in NETSOL TECHNOLOGIES.
- ✓ Lead Automation Framework capable of handling 4000+ test scenarios and 700+ screens.
- ✓ Certified in software safety, testing, configuration management and project management.
- ✓ Certified Technical Test Analyst.
- ✓ Certified Mobile Applications Tester.
- ✓ Certified TestComplete Expert.
- ✓ Deployed, Introduced and Administered JIRA in organization.
- ✓ Developed Online Leave application form (*Java-script based*) & leaves monitoring using SQL DB in organization.
- ✓ Artificial Intelligence implementation in self-selecting test suites to be executed
- ✓ Prioritizing test suites through machine learning.
- ✓ Diverse language skill-set including Java, VBScript, C#, JavaScript & Ruby.

### Professional Experience Summary

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#### **Principal Software Development Engineer in Test, Contour Software August 2018 – Present**

##### Projects roles and responsibilities

*Project: (Real Estate Applications Suite)*

I am working on a project related to real estate applications handling up-to 500 clients on a single code base. I created a hybrid automation framework capable of driving scripts based on keywords / actions testing with implementation of artificial Intelligence in choosing test suites to be executed based on client under test and code changes. 'Continuous Integration' pipeline is fully implemented to automate test execution triggers and fully automating quality tests without human interaction. We used **Selenium with TestNG (Used Java)** for this purpose:

- ✓ Development of Data Driven Framework with Java.
- ✓ Common Automation scripts based on product architecture.

- ✓ Continuous Integration pipeline with Jenkins.
- ✓ Parallel executions implementation with 10 servers.
- ✓ Management focused emails generation.
- ✓ Dynamic data verifications through Databases.
- ✓ Artificial Intelligence to self-analyze and choose tests to be run
- ✓ Test suites priority adjustment based on machine learning of previous results

#### Management roles and responsibilities

- ✓ Reporting Automation department performance to Product Managers.
- ✓ Maintain succession plan for Automation department and new resource interviews and training.
- ✓ CI Implementation and Server Management
- ✓ Direct Communication with Clients

#### **Pr. SQA Engineer / Functional Automation Lead, NETSOL**

**January 2016 – July 2018**

#### Projects roles and responsibilities

*Project: (Wholesale & Retail Finance / Asset Management Desktop Application)*

I am working on a project related to loan management system handling up-to 100,000 live contracts and need robust automation framework capable of handling changes to application as per client needs with minimum changes in the framework. We created a hybrid automation framework capable of driving scripts based on keywords / actions making it extremely robust and adaptable to the client needs. We used **Smart Bear TestComplete (Used JavaScript)** for this purpose:

- ✓ Prepare project planning documentation
- ✓ Development of Advanced Keyword / Action Driven Framework
- ✓ Lead Automation of 4000+ test scenarios
- ✓ Building Custom functions / procedure to develop support for legacy PowerBuilder application using Complex Text Recognition & Image Recognitions
- ✓ Compilation & Reporting Automation Results to management
- ✓ RPA implementations that include process definition (and potential reengineering) followed by design, build, test and deployment of the RPA solution

*Project: (Credit Application Web Application)*

I am working on a project related to Web application managing client proposal needs. Application with the capability of handling up-to 1000 concurrent users and each application carrying up-to 700 fields. Functional automation of the application was carried-out through under my leadership. We used **Selenium WebDriver (Used Java with Maven)** for this purpose:

- ✓ Prepare project planning documentation
- ✓ Development of Data Driven Framework Using SQL
- ✓ Lead Automation of 200+ test scenarios
- ✓ Building business actions reusable in the framework
- ✓ Compilation & Reporting Automation Results to management

*Project: (Web Services Automation)*

I am working on various projects having web-services exposed for client needs. Automation of Web services is also under my supervision.

- ✓ Prepare project planning documentation
- ✓ Development of Data Driven framework for Web-services
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#### Management roles and responsibilities

- ✓ Reporting Automation department performance and growth planning of 13+ resources.

- ✓ Maintain succession plan for Automation department and new resource interviews and training.
- ✓ Designing and conducting team performance evaluations.
- ✓ Training Automation resources on framework developments and management.

**Sr. QA Engineer / Software QA Team Lead, Powersoft19      September 2014 – December 2015**  
Projects roles and responsibilities

*Project: (Mobile Application for writing reading, writing & updating smart tags)*

- ✓ Prepare project planning documentation
- ✓ Testing mobile application for usability, functionality
- ✓ Testing through mobile testing tours including Orientation, Temperature & stress testing
- ✓ Back end application and SQL database tests
- ✓ Software QA documentation from requirements review till defect tracking with support of team

*Project: (Device Upgrading Software)*

I am working on a project related to device upgrading and service software which is used by the client service centers worldwide to upgrade 10 different device variants & a total of 20,000+ devices each with 40+ configurable parameters pulled from database and automatically upgrade any configuration changes to the device.

- ✓ Prepare project planning documentation
- ✓ SQL Database testing of parameters extraction and insertion
- ✓ Verifications of successful parameters update to devices
- ✓ Device communications fault seeding

*Project: (Fixed gas detection device)*

I worked on a project related to gas sensing devices embedded software with the compliance of safety standard CENELEC *EN50271* for *SIL-1* application.

- ✓ Prepared SQA documentation for *EN50271 SIL-1* compliance
- ✓ Prepared white box dynamic test scenarios and processes
- ✓ Verified source code compliance with industrial safety standards

*Project: (Portable gas detection device)*

I am working on a 6 different projects related to gas sensing devices embedded.

- ✓ Prepared SQA documentation
- ✓ Prepared Test design strategies
- ✓ Prepared white box dynamic test scenarios and processes
- ✓ Verified source code compliance with industrial safety standards

*Project: (German Rail Control System)*

I worked on a project of embedded software which will use in German *Rail Control System* with the compliance of railway software safety standard CENELEC *EN50128* for *SIL-3* application.

- ✓ Verified software requirements, architectures, designs, module designs and coding phase artifacts.
- ✓ Prepared white box dynamic test scenarios and processes.
- ✓ Verified source code compliance with industrial safety standards.
- ✓ Executed functional testing on safety and non-safety features of the software to validate work product.
- ✓ Created software change management processes.

Management roles and responsibilities

- ✓ Reporting SQA department performance and growth planning
- ✓ Maintain succession plan for SQA department and new resource interviews and training

- ✓ Designing and conducting team performance evaluations.

## **QA Engineer, Powersoft19**

**August 2012 – August 2014**

### Projects roles and responsibilities

*Project: (Industrial Automation Devices)*

I worked on a project related to software documentation compliance with the functional safety standard IEC 13849-1.

- ✓ Prepared test planning documents.
- ✓ Prepared test specification documents and process to test safety and non-safety features of the products.
- ✓ Created and managed 5000+ test cases for industrial automation devices.
- ✓ Reported projects status on daily and weekly basis to clients and management.
- ✓ Estimating project SQA activities and tracking progress as per planned deliverables.
- ✓ Coordination between all project stakeholders.

*Project: (Dot Net based application)*

I worked on a project related to dot NET application for configuration of industrial automation devices.

- ✓ Prepared test planning documents.
- ✓ Prepared test specification documents
- ✓ Created automation framework (*Data Driven*)
- ✓ Automate 100+ test cases

## **Test Engineer, Powersoft19**

**May 2010 - July 2012**

### Projects roles and responsibilities

*Project : ( Industrial Automation Devices)*

- ✓ Developed test cases.
- ✓ Executed functional scenarios using boundary value analysis.
- ✓ Contribute to test reporting documentation.
- ✓ Report Bugs on JIRA

## **Tools**

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Test automation	Selenium, TestComplete, HP Quick Test Professional, AutoIT
Web / Database	SQL Server, Oracle, MySQL
Mobile	Android SDK
White box	TBRun and TBReq (By LDRA), Source Monitor, Doxygen, PC Lint
Security testing	Acutenix, Wireshark
Load testing	HP Load Runner, JMeter
Issue Tracker	JIRA, Mantis, Bugzilla
Configuration management	TFS, Sharepoint
Project management	MS Project 2010, MS Office Applications
Source code Management	Git
Continuous Integration	Jenkins

## **Languages**

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- C#
- SQL
- Java-script
- VBScript
- Java
- Ruby

## **Qualification:**

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### **Post Graduate Diploma in Computer Science**

*Major: Computer Science (2020-2021)*

VIRTUAL UNIVERSITY OF PAKISTAN

### **BS Telecommunications Engineering 4-Years**

*Major: Embedded Systems & Databases (2006-2010)*

NUCES (FAST – LAHORE)

## **Certifications:**

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- Certified in *Process Safety Management*
- Certified in *Software Quality Assurance*
- Certified in *Software Configuration Management*
- Certified Technical Test Analyst (ISTQB)
- Certified Mobile Application Tester (ISTQB)
- Certified TestComplete Expert
- Training in *Leadership & Project Management*

## **Additional Information:**

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Worked with German Rail QA Team

Worked with American Gas detection client

Worked with American Industrial automation projects

Pioneered Function Automation department in NETSOL (NFS R1)