



# MuhammadFarhan

Agile Projects - Quality Assurance- Devops- Full-Stack Development

## Martial status

Married

## Address

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## Web

[LinkedIn](#)

[Docker](#)

[GitHub](#)

[CodePen.io](#)

## Expertise

■ Quality & Process Governance

■ Scripting & Automation

■ Communication Skills

■ Organizational Skills

■ CI & CD

■ Office365,Project & ALM tooling chain

■ Agile Retrospective,Sprint mgmnt & Backlog

■ AI and Machine Learning Usecases

■ Blockchain,Identity mgmnt & Databases

■ CyberSecurity &TRA

■ API Integration & Microservices

■ Test planning & management

■ SOA & Distributed Systems

JavaScript ★★★★★

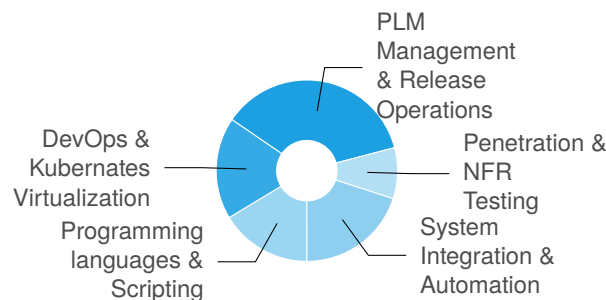
Python ★★★★★☆

Bash/Lua ★★★★★☆

## Summary

- ★ An **enthusiastic** about making technology purposeful and sell-able
- ★ Full **Remote** compliant infra, secured network, power backup and extended tooling
- ★ Member of Active Tax payer & Engineering Council (PEC) **ELECTRO /12552**
- ★ Proven track record with extensive working experience in every SDLC stage.
- ★ Ready environments & Speedy resolutions to common SDLC challenges
- ★ Sustainable planning through lean & **specialized risk suppression** techniques
- ★ **PMI-Agile Certified Petitioner** - Project Management Institute (Training)
- ★ **Simplifying AI technology** adoption for human & business both
- ★ **Mind-Sphere Applications Developer** Workshop (Onsite: Erlangen, Germany)
- ★ **Won awards** and appreciation letters from Senior Management at SIEMENS, MGC & Intech process Automation on various occasions for showing excellent performance.
- ★ **ISTQB® CTFL**- 2016-CTFL-00101-PK International Testing Qualifications Board
- ★ **Innovation** through **modern** tooling, agility, **openness** & delegation.
- ★ **Transparency**: zero waste approach, Modular Design, Re-usability
- ★ culture of appreciation, **respect everyone's** opinion
  - ★ **Improve continuously**, achieved goals & established collective success

I combine **vision with operational, domain & technical expertise** to bring next-generation technologies to market in record time.



**Extensive working** experience in overall PLM functions.Led productization process to ensure the product is built according to standard process gates (criteria) of planning, develop-

- ment and deployment
- Product Portfolio evaluation
- Cybersecurity
- Project planning
- Solution validation
- Project Risk classification
- OSS Clearance

## Functional Areas

Here are my common high

level functionality and my daily work aspects :

- ✓Resources capability retention, development & training
- ✓MVP & quick Prototyping
- ✓Test cases development & execution
- ✓use-cases identification & translation
- ✓Functional, integration & NFR test environment management
- ✓Health Checks, release pipelines & Workflows
- ✓Quality & release metrics tracking and implementation
- ✓Autonomous & Data Intelligence Systems
- ✓IoT & Service delivery model (SaaS)
- ✓System Simulation techniques & Test Methods
- ✓Cloud infra & Virtualization
- ✓Quality governance & PL
- ✓Codebase configuration management
- ✓Project dependencies & computability
- ✓Data Simulation sources & Backing services
- ✓Release Build, release, deploy workflows
- ✓Infra Concurrency, Disposability, Dev/prod parity (Environments)
- ✓Delivery definition & new offerings: continuously validate new business offering with existing product/projects
- ✓Cloud strategies & SaaS management
- ✓Test Logs & Management reporting
- ✓Running Experiments

- Technology patents
- Service offering, pricing & Licensing
- EHS and all other legal or compliance relevant topics

## Highlights

Please see the highlights for operational defectiveness in deliverable.

- **Deployment Frequency Increase** Elevated the deployment frequency from a monthly to a weekly or daily release cycle, leading to faster feature delivery and increased agility.
- **Deployment Success Rate** Achieved a consistently high success rate for deployments, with <10% fewer rollbacks or failed deployments over a specific period.
- **Reduced Downtime** Minimized downtime during deployments, resulting in a significant reduction in system unavailability and improved product and testing service reliability.
- **Automation Percentage** Increased the percentage of automated tasks in the CI/CD pipeline by 75%, reducing manual intervention and accelerating the release process.
- **Mean Time to Recovery (MTTR)** Reduced the MTTR for incidents, ensuring faster incident resolution and less impact on users.
- **Infrastructure as Code (IaC)** Adoption Implemented IaC practices, resulting in a less dependant infrastructure provisioning pipeline and decreased configuration-related errors.
- **OPC DA 2.0 and AE 1.01 Certification** for IntelliMAX OPC DA Server and A&E Server.
  - **IntelliMAX OPC DA and AE** clients interoperability
  - **IntelliMAX Historian** - ZERO Data Loss: To guarantee that there is end to end ZERO% data loss when IntelliMAX is deployed in a **distributed** architecture. The data includes VTQs (from PLC) and 'Alarms Generation' inside IntelliMAX. The challenge is to communicate the huge flux across the client Server chains and store it inside the server.
  - Designed and Executed Stress, Load, Data loss Validation, Sanity and Regression tests
  - Launched BETA and Commercial product releases i.e. **simulating plant environment** in lab using PLCs from following vendor. Allen-Bradley, Modicon, SCADA PACK and GE
  - **Benchmark**'d IntelliMAX Data Historian with OSIsoft PI (Stress Testing) - Data Archiving and Data Retrieval on trends
- **Implementation of Tech-Support frame work** to establish the level of responsibility among the groups, expected response time commitments, and when to appropriately escalate an issue and to which level? This framework is also supported to diagnose and resolve common problems typically going through the exact same past problems by managing history / knowledge-base.
- **Resource Cost Optimization** Lowered infrastructure costs by Xthrough efficient resource allocation, auto-scaling, and cost monitoring.
- **Security Vulnerabilities Mitigation** Decreased the number of security vulnerabilities in production through automated scanning, patching, and proactive security measures.
- **Monitoring and Alerting Improvements** Enhanced monitoring and alerting systems, resulting less false positives and faster incident detection.
- **Microsoft Test Manager** was implemented within existing infrastructure to facilitate the testers and developers for better organization and execution strategies for their test plans, also improved tester effectiveness, reliability, and repeatability. Test Cases design and review activities were integrated with Team foundation server.
- Established **QA infrastructure** with the implementation of virtual environments, use of data archiving techniques and provision of necessary hardware's and software to replicate the production environments.
- **Visibility to higher management**/stake holders was much increased by providing the

## Applications

The list of applications

grouped by domain that I worked:

### IoT Cloud Big Data

- Device Provisioning
- Remote Device Configuration
- Firmware OTA Updates
- Monitoring and Diagnostics
- Security and Access Control
- Scalability Lifecycle
- Device Grouping and Tagging
- Alerts and Notifications
- Data Storage and Analytics
- Energy Management
- Asset Management
- Predictive Maintenance
- Environmental Monitoring
- Process Automation
- Healthcare Medical Devices

### AI & Machine Learning

- Computer Vision
- Speech Recognition
- Recommendation Systems
- Autonomous Systems
- Predictive Analytics

### SCADA and HMI

- Plant Information management system
- SCADA Historian
- Visual HMI Systems
- Remote Device Telemetry data
- Alarms & Event Management
- MES - Manufacturing Execution Systems

multiple Dashboards and status reports to device the present and future strategies.

■ Design of **Product data sheets**, performance bench-marking and redefinition of the artifacts for acceptance and entry/exit criteria for different phases in software development cycle.

■ **Cross-Team Collaboration** Facilitated collaboration between development, operations, and other teams, leading to a increase in overall team productivity.

■ **Containerization Benefits** Achieved a significant reduction in resource utilization and improved scalability by containerizing applications and services.

■ **Compliance Adherence** Ensured compliance with industry standards or regulatory requirements (e.g., HIPAA, GDPR) with zero major compliance violations over a specified period.

■ **Infrastructure Resilience** Increased infrastructure resilience by implementing disaster recovery and failover mechanisms, resulting in fewer unplanned outages.

■ **Feedback Loop Optimization** Shortened the feedback loop between development and operations teams, resulting in faster issue resolution and improved collaboration.

■ **Documentation and Knowledge Sharing** Established comprehensive documentation and knowledge-sharing practices, resulting in reduced onboarding time for new team members.

## Education

### BSc in Electronics Engineering

#### NFC Institute of Engineering & Technology

📅 2003 – 2007

📍 Multan, PK

✓ **Grade: A+**

✓ **Professional Engineer** License holder PEC 12552

Physics and other sciences, applied research, design of devices, equipment, and systems for manufacture, field-testing, the establishment of quality control standards, supervision of manufacture and production testing, and engineering management

## Experience

### **SIEMENS** | PLM Officer / System Integration Expert

#### Industrial AI & Machine Learning | Digital Industries Factory Automation

📅 Aug 22 - Sep 23

📍 Hybrid, Lahore

Led the overall QA activities for the AI and ML software product line which involves numerous GA product releases and various services projects

■ Develop and manage project plans for different product releases, test automation and services projects

■ Consultation, coordination and collaboration within QA and with development teams and marketing

■ Project progress, defects tracking, QA metrics and status reporting, issues resolution and risks identification

■ Product requirements analysis and maintain traceability matrices Projects execution and resources management

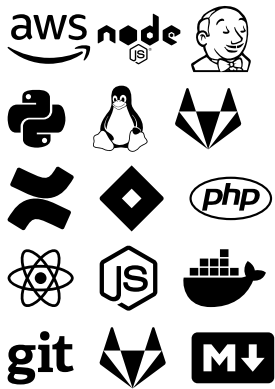
■ Test coverage analysis and test cases review

■ Test automation frameworks design and implementation

■ Processes development, implementation and improvements

■ Correspondence on issues with development teams and customers

## Tooling Chain



## Organizations

Here is the list of organizations that I worked for:

- Technology & Innovation (TI)
  - Reference Application Design (RAD)
  - Technology Transfer (TT)
- Process Quality Management (TQM)
- Operations & Deployment (DevOps)
- QA & Validation
  - System Test (SYS)
  - Field Test & Deployment (FTD)
- Project Management Office (PMO)
- Product Management Group (PMG)
- System Level Engineering (SLE)
  - Cloud Application Services (CAS)
  - Cloud Services Platform (CSP)
  - Industrial Edge (IE)
  - Embedded System Design (ESD)
- Autonomous Factory (AF)
  - Industrial AI Systems

■ Documentation/code/design reviews

■ Team Management

■ Delivery Flow Acceleration

■ Office 365 Tooling

■ PLM Management

■ Continuous Integration

■ Kubeflow

■ AWS

### SIEMENS | Senior Technical Lead

#### Industrial Operations X | MindSphere Industrial IoT Cloud

■ Aug 17 - Sep 22

■ Hybrid, Lahore

Played a key role in executing on the IoT Software Platform test automation strategy, driving quality and testability of built over AWS

■ Enabled integrated collaboration env, work visibility for technology development teams

■ PLM milestones planning & quality gate qualification criteria's.

■ Standardization in release workflows & adopted tooling

■ Process tuning & documentation.

■ Built and tested highly scalable mesh network, where distributed services run in public, private and hybrid cloud infrastructures

■ Defined defect tracking and correction procedures, monitoring and updating defect reports as needed

■ Wrote test scripts to assess software quality, and develops automated test reporting to increase test effectiveness.

■ Developed test plans and test procedures for testing of all components at the unit, module, system and integration levels, performing risk analysis when required.

■ Built and test large scale messaging infrastructure, data replication

■ NodeRed

■ Polarion

■ Microsoft Altassian Tooling

■ MachineLearning

■ Edge Applications

■ AWS-Hybrid Cloud

■ AWS-Lambda

■ AWS-GreenGrass

■ sqllite

■ Angular

■ Linux Runtime & Containers



### Mentor Graphics | Senior Technical Lead

#### Cloud Services Platform (SLE)

■ Apr 15 - Aug 17

■ OnSite, Lahore

The required acceleration to speeds up technology innovation requires both technical domain expertise & tailored process framework.

■ Led QA activities for cloud and embedded software product line

■ Product requirements analysis

■ Test coverage analysis, test cases development and review

■ Develop and manage test plans for different product releases

■ Test plans execution

■ Test automation, test frameworks design and implementation

■ Documentation reviews

■ Processes development, implementation and improvements

■ Project status reporting

■ MQTT, IoT Protocols

■ Data Simulation

■ Cloud Connectors

■ Virtual Devices

■ Postman, ReadyAPI

■ Embedded Devices Testing

## Projects

Projects details can be seen at [LinkedIn](#)

- Machine Learning and Flow Manager (Framework to develop AI apps)
- ORION - (Machine learning model training runtime)
- IntelliMAX (Industrial Automation & HMI Software)
- CSP - Cloud Services Platform
- Distributed Intelligence
- IoT Device Management
- M3 - Machine Monitoring & Management
- OEE (Overall equipment efficiency)
- OPC server & client compliance DA/HDA/AnE
- PLC Alarming
- Plant Assets Ontology ISA95
- Plant Information Management System - SCADA Historian
- Product security Cyber threat & risk assessment
- SCADA hot redundant Server & Client Switchover
- Simulation Twin Lab
- Transfer of Technology - JV



| Delivery Compliance & QA Manager

### Intech Process Automation Inc

June 2009 – April 2015

OnSite, Lahore PK

- Innovated sellable quality product
- Acted central point for development, architects, documentation, PMG, Commercial, services and Enterprise quality.
- Led the teams of software testers and field test engineers to build the validation strategies for mission critical and fault tolerant industrial systems and applications.
- Built agreements, guidelines, and standards in order to resolve issues and create practices.
- Respect people. Talent hunt and resource training.

■ OPCUA

■ ISA95

■ SCADA

■ Distributed Systems

■ Performance Testing

■ JMETER

■ Regression Test



Applications Engineer

### Imperious Technologies

September 2007 – June 2009

OnSite, Lahore, PK

- Delivered commercial complaint criteria and control strategy for the products under test
- Assisted development process for faster production grade release.

## References

The references are taken from [LinkedIn recommendation section](#)



**Shay Benchorin** · 1st

Director of Technology & Innovation - Advanced AI Systems  
September 30, 2023, Shay managed Muhammad directly

During his eight-year tenure, Farhan consistently demonstrated a remarkable ability to understand the big picture with attention to details, analytical mindset, and strong leadership.

Farhan greatly contributed to streamlining our quality processes and system integration adaptability to the evolving needs of the technology innovation.

I am confident Farhan would be a valuable asset to any organization seeking an individual who can deliver results, inspire their team, and uphold the highest standards of product and process quality.



**Asif Ahmad** · 1st

Technologist and Entrepreneur  
June 30, 2015, Asif managed Muhammad directly

Farhan is knowledgeable, intelligent, committed and skilled as well as a great team player and a good leader. I am sure he'll be a great asset wherever he goes. Wish him all the best in personal and professional life.

If you need more personal, professional and reference details. It can be provided upon the request. please don't hesitate to contact me

Yours sincerely,  
Muhammad Farhan