Resume

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Professional Summary

- Worked as Protocol Test engineer for Embedded Products in Industrial automation domain like Industrial controllers and Drives option module . Worked on Test automation of PLC and drives products . Embedded testing activities like Protocol functionality test , Power brownout test, Firmware upload/download test ,etc.
- Work experience of Design solutions for Industrial communication protocols like ControlNet, EtherNetI/P, DeviceNet , Profibus, Modbus, BacNet ,etc.
- Knowledge and experience of Utility communication protocols like DNP3 ,IEC61850, etc.

Skills Profile

Technical

Drive Commissioning Tools	Uni M connect , SyPT Pro , Machine Control Studio, Winflasher
Languages	C++, C# .net programming ,Python, Ladder Programming , Shell scripting
Protocols worked on and Tools used	DNP3 Testing ,IEC 61850 ,TMW, Tcl scripting, EtherNet/IP Testing, EIP scanner , Profinet Testing, Modbus, ASCII 485, OPC
Rockwell Skills	ControlNet, EtherNet/IP, DeviceNet, Studio 5000, RSLogix 500, Connected component Workbench, Drive Executive,RA tools.
Internet Tools	Wireshark , HTML, Simply modbus, Modpoll,

Professional Experience

Organization Name	**Danfoss Industries Pvt Ltd**
Client Name	**Danfoss Drives, Denmark**
Project Name	**P400 Drives Feildbus Test team**
Project Duration	**From 2 Aug 2021 To 5 Aug 2022**
Role/Title	**Sr.Software Test engineer**
Work Location	**Oragadam, Chennai.**

Project Description

Worked on a Customer issue for ProfiNet and Dual Port ProfiNet Testing activity for FC302 Automation Drives for P400 Drives Project.

Tools used – ProNETA, TIA portal, wireshark,MCT10.

Organization Name	**Buzzworks Pvt ltd**
Client Name	**Capgemini (Rockwell Automation)**
Project Name	**Flex Redesign project**
Project Duration	**From 31Jan2020 To 12June2020**
Role/Title	**Consultant**
Work Location	**Airoli Navi Mumbai**

Project Description

Worked on 1794- VHSC module Redesign project for client of Capgemini Mumbai for Rockwell Automation. Worked on feature matrix and testcase design activity by doing benchmark testing of existing modules. Prepared the detailed Testplan for new Redesigned module. Prepared the test plan for VhSC module behaviour with controlNet, EtherNet/Ip and Profibus DP networks.

Tools used – Studio 5000 , SST Profibus tool ,RsNetworks ,etc.

Organization Name	**Tech Mahindra Ltd.**
Client Name	**Nidec Control Techniques**
Project Name	**Offshore Test support**
Project Duration	**From 22Feb2018 Till date**
Role/Title	**Senior software engineer**
Work Location	**Hinjewadi ,Pune**

Project Description

Working for Nidec control Techniques Offshore Development Center on motor drives(VFD) Embedded product testing for Uni-Drive M700/Road Runner product. Working on Testing of Embedded Industrial communication Protocols Tested for Factory fitted Ethernet module of Uni Drive M700. Worked on Ethernet/IP and Profibus communication testing for Factory fitted Ethernet communication module and SI-Profibus module. Testing involves Regression testing and python test automation for communication cards testing with various Industrial communication protocols. Testing the communication of drives with Rockwell and siemens PLC for performance. Testing with various setups for System level tests for Protocol performance .

Responsibilities

- Design new test cases for new feature support and existing test case modifications as per test requirements.
- Checking the performance of Drives communication protocols with various Industrial controllers Like Rockwell and Siemens.
- Verification of defects and designing the testcases as per resolved solutions.
- Verified the Performance of EtherNet/IP module for new product development. Verified the EDS for 3rd party communication for EtherNet/IP with Rockwell PLC . Verified the Address Conflict Detection feature developed with Dual port for EtherNet/IP module. Verified the Assembly object communication for EtherNet/IP with Rockwell PLC.
- Performed the Webserver Testing for Factory Fitted EtherNet/IP module.
- Tested SI-Profibus communication with legacy features and for Profidrive profile test.
- Tested Profidrive State machine V2 and V4 for Control Techniques drives families.
- Worked on siemens S7-315/317 PLC for Profibus communication functionality testing.
- Working on SI-DeviceNet product testing for functionality behavior.

Software / Special Tools

Python ,Wireshark ,Uni M connect,Studio5000,Step7,TIA portal, Machine Control Studio

Organization Name	**Capgemini (IGATE).**
Client Name	**Rockwell Automation, Singapore**
Project Name	**MLX Continuation**
Project Duration	**From June2014 Till 19Feb2018**
Role/Title	**Senior Analyst**
Work Location	**Hinjewadi ,Pune**

Project Description

Worked for MLX Continuation / M800 Continuation Project of Rockwell Automation Singapore Client of Capgemini with full owner ship for Product Testing. This Project involved Regression Testing of Automated scripts written in Perl and PCCC commands for Wolverine (ML1400) controllers. This Regression suite requires MKS toolkit for Unix to Windows compatibility. Most of scripts are combination of Perl and Unix commands for running PCCC commands using PCBT in a shell. Perl and Unix commands are written to generate Pc3 files which eventually executes using PCBT tool. Besides this the project caters for DNP3 Protocol level testing for ML1400 series B&C controller. Triangle Microworks (TMW) tools is used for this Protocol levels testing. DNP3 Protocol is a utility protocol used for RTU to HMI communication to ensure disturbance free communication in utility industries. DNP3 protocol Testing is mainly done for DNP3 over IP implementation.

Responsibilities

- MLX Continuation project is to track Anomalies, Reproduce Anomalies, and Design new test cases, Run the Regression Test case for Wolverine (MLX 1400) and Orlando (MLX 1100) Series B Controllers.
- Also Worked on M800 Continuation project. Work experience of TAF code development, Test case Automation of Modbus and ASCII protocols for M800 continuation project.
- Executed many Regression cycle from offshore for communication related test cases.
- Testing of various Controllers features with New released Firmware. Tracking the Anomalies for the same.
- DNP3 Protocol Testing for MLX 1400 Controller for new released firmware and tracking the Anomalies in the same.
- Logged Anomalies in clear quest suite and RQM for Test case management.
- ML1400 Regression test Script modifications done for PCR activity to meet the compatibility of present firmware functionality.
- Tested Controller features like HSC,PTO ,PWM, Web server, Memory backup Restore, Controller password protection, Interrupts, All the communication protocols supported by the MLX and M800 controllers like DNP3 , Modbus, ASCII485, EtherNet/IP.
- Tested Expansion I/O supported by MLx1400 and Various plugin modules of M800 controllers.

Software / Special Tools

TAF,Perl,RS500,PCBT,Wireshark,Tcl scripting, TMW, Connected Component Workbench.

Organization Name	**DVS Techno soft Pvt. Ltd.**
Client Name	**TATA Motors ,PCBU chinch wad**
Project Name	**X1 line**
Project Duration	**Mar 2014-May2014 (Onsite)**
Role/Title	**Team member**
Work Location	**PCBU Chinch wad**

Project Description

Worked for TATA motors as a project engineer on DCP standard .Ladder development and HMI modifications done to meet new car launch.

Responsibilities

- Development of Ladder Logic and commissioning and control of system as per standard for automotive control line based on interlocks of system. Development of HMI screens as per client requirements.
- Support operations for production line after the Logic changes of PLC.

Organization Name	**DVS Techno soft Pvt. Ltd.**
Client Name	**Just Engineering client -Sage Automation**
Project Name	**Melbourne Water WTP**
Project Duration	**May2014-May2014**
Role/Title	**Team Member**
Work Location	**Pune**

Project Description

Melbourne water corporation upgraded their PLC panels to Control Logix platform from SLC . WTP logic was developed for inter-processor communication.

Responsibilities

- WTP Ladder Logic was developed for inter-processor communication with produced-consumed Tags as per client standard.
- Ladder Logic migrated from SLC to Control Logix.
- Panel-view 600 HMI was developed with 25 screens license limitations.

- HMI migrated from RS-view 32 to FTV 6.10

Organization Name	**DVS Techno soft Pvt. Ltd.**
Client Name	**Rockwell Automation ,Pune**
Project Name	**Brahmaputra crackers & polymers Ltd.**
Project Duration	**Oct2013-Dec2013**
Role/Title	**Team Member**
Work Location	**Dulia Jan , Assam**

Project Description

Rich gas compressor station is operated with Air operated solenoid valves, for this Air compressor is used. This Air compressor is controlled with Logix L63 controller based system over control net network. 1756 Local I/o's were used and intrinsic safe Isolation barriers were used for explosion proof environment. Factory Talk view 6.10 SE Local SCADA was developed for Air compressor control and Control of Valves and motors and entire system control of Rich Gas compressor control.

Responsibilities

- Development of Ladder Logic and commissioning and control of system as per control philosophy for Air compressor control and Valves controls based on interlocks of system.
- Development of SCADA screens as per P&ID at client as per client requirements due to changes in P&ID.

Organization Name	**Siscon Pvt. Ltd.**
Client Name	**Rockwell Automation , Pune**
Project Name	**Bhushan Steel Pickling Line**
Project Duration	**Apr2011-June2011**
Role/Title	**Team Member**
Work Location	**Khopoli plant**

Project Description

Steel pickling line is used for cleaning the steel sheets by passing the sheets through Acid baths and rolling them back. This line was controlled on control Logix L63 over RIO network and Panel view 1000 was used for field operation. Existing systems was re-commissioned during shutdown with addition of 1756DHRIO card and up gradation to L63 with migration from Panel view 500 to Panel view 1000.

Responsibilities

- Development and commissioning of HMI from old backup of panel builder at client site during plant shutdown as per client requirements on RIO network

Organization Name	**Siscon Pvt. Ltd.**
Client Name	**Rockwell Automation ,Pune**
Project Name	**S&W -CGPL ,HVAC plant**
Project Duration	**June2010- Feb2011**
Role/Title	**Project Engineer**
Work Location	**CGPL , Mundra ,Kutch.**

Project Description

Screw chillers / VAM chillers based Air conditioning system of 750 TR for Electrical Panel rooms and comfort was controlled using Control Logix L63 controller on control-net network with Panel view 1500Plus as HMI for field operation. 1794 Flex I/o's were used on ACNR Adapter. Sequence of operation was to start/Stop AHU , CT ,CDWP,CHWP ,SLCP/VAM in sequence based on running Hours count and (2) Working + (1) standby mode of operation. Bac- net protocol was used to communicate with 3 chillers using Prolinx Bac- net module and 1756 ENBT Bridge. Pressure switch based interlocks were used to Trip the operation of pumps and AHU's. Factory Talk view ME 5.10 was used for HMI and all the parameters of chillers were displayed along with Plant operation screens.

Responsibilities

- Complete Commissioning & Development of Ladder Logic using control philosophy at client site.

- Field side and inter panel wiring to PLC panel as per TEC standard.
- HMI screens modifications as per client requirements on site.
- Knowledge of ASHRAE Standard

Education

Educational Record				
Course of Study	***Specialization***	***Name of University***	***Address of University***	***Year of Completion***
B.E.	Industrial Electronics	Pune University	Pune University	2006
H.S.C		Maharashtra Board		2000
S.S.C		Maharashtra Board		1998

Professional Organizations

Prior Work Experience Details					
Organization's Name	***Designation***	***Dates of Employment***		***Location (City & State)***	***Explanation for Interruption / gap (If Any)***
		From (DD-MON-YYYY)	***To (DD-MON-YYYY)***		

Tech Mahindra	Sr.Engineer	22-02-2018	Till Date	Pune,Maharashtra	
Capgemini(IGATE)	Sr Analyst	19-06-2014	19-02-2018	Pune,Maharashtra	
DVS Techno soft	Project Engineer	12-10-2013	09-06-2014	Pune,Maharashtra	
Micro Aids	Project Engineer for Audits	03-10-2011	05-10-2013	Pune,Maharashtra	
Siscon	Project Engineer	05-05-2010	30-9-2011	Pune,Maharashtra	
Wampro Systems	Production & Service Engineer	01-10-2007	30-04-2010	Pune,Maharashtra	