**KAPIL KUMAR SINGH**

**E-Mail**: **kapilsingh.k7@gmail.com** ~ **Mobile**: +9986172133

Seeking a Position in growth oriented organization where my current knowledge can be put into practice and enhanced.

**Profile Summary**

* Having Around 4.6 years of Experience as a Software Testing in **V&V domain** (Verification and Validation).
* Good understanding of working under **Verification and Validation**.
* Good Understanding of Manual Testing, Agile Methodology, V&V.
* Good Knowledge of **C,C++** and **Embedded Testing**
* I have Good understanding **of DO-178B**.
* Domain experience in **Avionics**  and **Oil & Gas.**
* Experience in **leading testing related activities** from Start-to-End of a project.
* Good knowledge of **Manual testing**, **White Box testing** and **Black Box testing** in Aerospace domain.
* Exposure on **Unit Testing, Integration Testing and Hardware Software Integration Testing**.
* Good knowledge on **SDLC**(Software Development Life Cycle) & **STLC**( Software Testing Life Cycle).
* Involved in **RBT(Requirement Based Testing**),**SIT**(Software Integration Testing),**Unit Testing**, Scenario
* Based testing, **Regression** Testing, **Functional** testing, **System** testing , **Structural coverage**
* Exposure in DEOS operating system, **EPIC** Architecture, TATS, EASE System.
* Exposure to issue tacking tool (**JIRA** ) , **MTM(**Microsoft Test Manager) processes.
* Exposure on the CM Version(Serena dimension ).**PVCS**(POLYTRON VERSION COTROL SYSTEM)
* Active Member of 5S team.
* Knowledge of Aspire (Creation of Review Packet).
* Knowledge of **MCDC**(Modified Condition Decision Coverage) ,**Singularity** , **Equivalence** class partition.
* Test Case Design, Development, Execution and Defect Reporting and Validation.
* Basic Understanding of **Agile** Method and V-Model
* **C, UNIX**

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| **Experience Summary** |  |

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**Software Engineer, Quest Global, Bangalore (Oct -2015 to Till now).**

* GE Oil and Gas (GE's System 1 Condition Monitoring and Diagnostic software ( Nov – 2016 to till now)
* Working in HTS In D&G (TSC) and Agusta Projects ( Oct – 2015 to Dec -2 016)

**2. Software Engineer, Collabera Technologies , Bangalore. (July -2014 to July -2015).**

* Deploy in Client Location Honeywell Technologies Solutions (HTS). TCS ( Touch Screen Controller ) and EPS.

**3. Software Engineer, Imperial Impact, Bangalore.**

* Feb -2013 – July -2014. Deploy in HCL technologies solutions

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| **IT Skills** |  |
| Languages | C Language, C++,Objective C. |
| Operating Systems | Windows XP, UNIX, MAC OS X. |
| IDE/Tools | Xcode 5.0, eclipse, Vector Cast (6.1c3), TATS, LDRA, TFS , MTM. |
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| **Project Undertaking** |  |

# Project 1: GE's System 1 Condition Monitoring and Diagnostic software V 17.1 (Nov -2016 to Till now).

**Tools Used :**  System 1 , ADK , Visual Studio ,C#, Windows 7, SQLite1.5, TFS2012, MTM2013

**Description:**

System 1 is a Condition Monitoring and Diagnostic Software, System 1 Monitor real time health of Instruments and analysis the data and Help in Maintenance for Configuration in System 1 , we use ADK as a configurator tool ADK helps engineers to model the systems with help of different modules like

Text management, Units Management, Property Management and Asset Modelling for monitoring the health of machines which in turn helps to reduce the cost incurred in maintaining the systems.

**Responsibilities**

* Written Acceptance criteria for User story and Technical Discussion with Client.
* Writing Test Cases , Executed Test cases in MTM and Generated Test Report
* Preparing Requirement Traceability matrices for new business Modules.
* Reported Bugs in TFS , TSF maintenance( Task Creation and Status Updates) and Scrum Updates.
* Involved in Regression Testing.
* Preparing test suites in MTM 2013.
* Responsible for Sprint demos and Bug validation meetings with Customer.

**Project2: (**D& G) Display and Graphics, Touch Screen Controller (TCS) form Quest ( Oct – 2015 to Dec - **2016)**

**Tools Used:** TATS, EASE, PVCS, Aspire, Jira , VB scripting ,TIU server, C++ Language , EPIC, White Box Testing.

**Description:**

The Touch Screen Controller (TSC) is a Line Replaceable Unit(LRU) installed in Cockpit. The Touch Screen Controller (TSC).Provides the primary interface for crew input with in the cockpit using an LCD display with a menu structure to provide touch controls for each supported function. The TSC will interface to systems that are federated using individual interface buses or to systems that are integrated using an interface to a Modular Avionics Unit (MAU). The TSC replaces the MCDU, the SMC (controller functionality), and the crew audio interface is moved to the TSC.

**Responsibilities**

* Code Based Testing.
* Structural Coverage And Code Review .
* Regression Analysis.
* Responsible for requirement based testing/ scenario based testing.
* Creating the test script manually using VB script.
* Setting of MC/DC conditions.
* Running the test script on simulator and real hardware for checking the correctness of test script
* CR fix and code review

**Project3: RFID Based Tool Gate System**

**Tool Used** : Embedded C ,Eclipse, Microcontroller 8052,LCD,Keypad ,RFID Tag, DC Motor.

**Description**: RFID is Automatic identification method that utilize wireless commutation between reader and small silicon chip Embedded in items to be tracked .RFID Technology transmit and receive data on Tags using radio waves and RFID reader. In a generic RFID system a reader send out a broadcast radio signal. An RFID chip ,upon receiving that signal responds with a broadcast radio signal announcing its unique ID number. This signal is observed by the reader and passed along to software that looks up the unique ID no in a Database to find related information .Password can also be set for further improvement.

**Responsibilities:**

* Development code of the system .
* Embedded Testing .
* Implementing Code Updated.
* Involved in designing the application and development.

**Project4: NGC (Nitrogen Generation system ) for commercial flights for Airbus A350 XWB.**

**Tool Used** : RTD,EPACS(Hamilton standard tool),LDRA Toll, C language ,Beyond compare, .

**Description**: NGS is used to reduce fuel tank flammability by decreasing the oxygen content of the airplane in each fuel tanks. The vent system also ensure that the pressure created in fuel tank airspace doesn’t exceed structural limits. This is Level B software .

**Responsibilities:**

* Doing Module Testing ,Code review .
* Generate Coverage Reports, Test reports and Taking Instrumented Coverage.
* Static Analysis Using LDRA Tool according to Misra C standard.
* Create and Execute Test cases Based on SRD and DD.

**Project5: ECS(Environmental control system ),ACS(Air conditioning system). AIRBUS A350 XWB WP2**

**Tool Used** Vector Cast tool, AVTO,SI doc Generation, BPS,PRAT,C language

**Description:**

ECS is defined as the equipment that controls the pressure, temperature and humidity of the Environment surrounding the occupants, equipment and structure of the aircraft. The Project involved Hardware Software Integration testing of Engine Bleed Air System Adhering to DO-178B.The WP2 Air Generation System, Conditioned Service Air System & Temperature Control System.

**Responsibilities:**

* Analysis of requirements and low-level SVP
* Analysis of software design document
* Development of SI test host build environment
* To design the test case.
* Regression Testing , Software Integration Testing .
* Test case execution and Debugging .
* Host execution with the help of Target execution (Via Batch Processing System)

**Duration** Feb -2013 to May -2013 (Team size 4).

**Training Undertaken:**

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| **Title** | Embedded Systems |
| **Organization**  **Duration** | Vector India, Hyderabad.  6 months. |

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| **Title** | PLC & SCADA. |
| **Organization**  **Duration** | Sofcon India Pvt, Ltd (Bhopal).  1 month. |

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| **Education** |  |  |
| 2011 | B.Tech . (Electronic and Instrumentation | ) from Anand Engineering College, Agra. |
|  | University UPTU |  |