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Sunil Udupi

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| SuMMARY |  | **Working in Flash memory** **(Semiconductor) industry** for **more than 3.5** years providing my expertise in embedded domain testing, cross domain knowledge to FW Verification of NAND memory products. Contributed to FW releases to OEMs like Huawei, Samsung, MediaTek.  **Worked in Avionics** **Industry** for **more than 10** years with very good understanding of Embedded systems, Do-178B/C guidelines, thorough understanding of Verification and Validation. Contributed to Avionics Software Certification of Airbus, Boeing, Dassault aircraft. I am a lifelong learner and interested in exploring everything related to programming, computers & computing. I **specialize in debugging**, **breaking down issues/problems and finding solution.** |
| Skills & Abilities |  | * Quick learning and Decision making, Ownership of Tasks * Technical Contact Point * Independent learner and team builder * Program Management, Processes * QE, PCR, Estimation, Reporting * Do178B, Do178C, Aero Processes * Data Analytics on Test Data, Problem Reports * Proficient in Python, C * Embedded Memory Domain * EMMC, UFS Protocol Knowledge * Full validation cycles for Memory Products * Test Planning Documents * Strategic Deployment Plans, Automation A3 * UT, SI, HSI, Legacy and Current Environments, SCA * Proficient in Test Strategy and Tools |
| Experience |  | PRINCIPAL ENGINER, WESTERN DIGITAL May 2017 – Current  **UFS products, EMMC products**: DVT, Platforms testing, FW Download scripts for HDD platforms, FW Verification, ROM Testing, Good understanding of Architecture  As part of white-box testing, run the FW in simulation environment to effectively evaluate various algorithms such as   * Bad block management, * CVD, * FW Download procedures, * Wear Leveling, * End of Life, * Background operation.   This is performed by understanding the FW and inserting call backs at certain places to get FW internal information.  As part of black box testing on platforms,   * developing, and running various stress tests, * performance tests, * temperature profile, * graceful and ungraceful power tests and * specific scenarios required by customer in android environment with detailed analysis of the results.   Firmware Verification for   * eMMC and UFS products with deep understanding of test framework and test suite used. * Perform failure analysis of the FW issues before release to customer and * Reproduce and support in RMAs after FW released to customer.   Working on different segments of flash products related to Automotive, Computing, Connected Home, Mobile, Generic. Provide various properties of the product in temperature profile for different segments, performance details and other internal measures.  Qualified more than 10 FWs which are released to OEMs and are running in various mobile/IOT/Embedded platforms. TecHNOLOGY SPECIALIST, Honeywell Technology Solutions May 2016 – May 2017  **M345 ECB –** Complete Environment Control System verification for a military trainer jet. Involved from planning till certification phase.  **Activities:**   * Test lifecycle for the M345 Program. * Planning documentation for the Do178C lifecycle * SVP, PSAC, SDP & Requirement, Architecture reviews * Test Environment setup and maintenance * Test Strategy Design for rest of the team.   June 2014 – May 2016  **M1000 AMSAC –** The M1000 AMSAC controls the AMS uses engine bleed air to provide suitable airflow for ice protection, aircraft conditioning and cooling systems. AMSAC software performs the processing required by BAS, WAIS, ECS and CDS.  **Activities:**   * Test lifecycle for the M1000 Program Scope. * Full FQT Cycle and SCA. * Defect Reporting and Bug lifecycle management. * Improvements in existing process and tools, Tool Qualification for 1484U Simulator.   **Roles and Responsibility:**   * **Tech Lead** – Creating SWI, Training New Team members, System Understanding and knowledge sharing, Automation of test development, Implementing SVV Strategies and tools, Implementing SVV AG in the program, improve existing legacy process to accommodate SVV initiatives. 1484U Simulator update and Qualification * **Acting Project Lead** – Creating ABMs and providing program execution plans, Supporting PCR, QE estimations, Complexity Analysis of requirements to reduce efforts, managing team to meet the program execution plan, Risk mitigation for increased scope growth.   April 2011– June 2014  **A350 XWB ECS - WORK PACKAGE 1 (OHDS, EBAS, & WIPS). –** The Work Package 1 software performs overheat detection, management of bleed air and wing ice protection. These sub systems along with other work packages provide complete ECS solution for the A350 XWB aircraft.  **Activities:**   * Full Test lifecycle for the WP1 Program Scope. * Full FQT Cycle and SCA. * Defect Reporting and Bug lifecycle management. * Improvements in existing process and tools.   **Roles and Responsibility:**   * **Tech Lead** – Creating SWI, Training New Team members, System Understanding and knowledge sharing, Automation of test development, Implementing HSI strategies, performing FQT for Boot Loader software. Running S-Curves and status reporting, complete ownership of EBAS to meet program commitments, TEF software update. * **Senior Engineer** – Creating and improving Unit Test Process, Creating CBS debugging procedure and interface for all work packages w.r.t to A350 Lab. Issue resolution and contact point for more than 100 members, Creating and improving SI test strategies and processes, Reviewing, and updating the process document and guidelines. Simplify tool initial development, SITG development, UTG development.  SENIOR ENGINEER, ACCORD SOFTWare and Systems pvt ltd June 2007– March 2011  **Boeing 787 ECS System: WIPCU (Wings Ice Protections System Control Unit):**  This was a DO 178-B Level A project. The WIPCU is a wings ice protections unit, developed by Ultra Controls for Boeing 787 Dream Liner. This program contained different sub systems such as Boot Loader and Application Program. The WIPCU System uses an Electrical system for ECS instead of the general Pneumatic System.  In this project, I have performed following activities,   * ARINC A429 protocol development. * Unit Testing using LDRA Testbed (C and ASM) (Code and requirements coverage as per DO178-B Standards.) * Software Integration Testing. * Design activities and Bug fixing * Boot Loader testing for PowerPC Processor * Automation of testing process in LDRA and CCStudio. |
| Education |  | Dr. Ambedkar institute of technology—Bangalore—B.E (CSE) – 77.22%Poorana Prajna College—Udupi—II PUC- 69.00%kamala bai high school—udupi—SSLC – 82.72 |
| TECHNICAL EXPERTISE |  | **Languages**: Python, C  **Software**: VectorCAST/COVER, HSITD, BPS, AVTO, HDTCG, PcMonitor, Unity, CCStudio (DSP), LDRA (Testing tool), ABM, S-Curve, PVCS, CC/CQ, ASPIRE, PRAT, JIRA, GIT  **Concepts**: Project Planning, QE, BOE, PCRs, SQDCP, AVT2, Software Engineering, Software Testing Concepts, Do178B, FQT Process, SOI Audits.  **Protocols**: EMMC, UFS  **Systems**: Windows 7, Solaris, HeartOS, IMA, MIO.  **Hardware**: C2000 family DSP (F2808 & F2812), CPIOM, ATS, GATS, 1484U AMSS, 68K Simulators, PSIM Simulators  **Experience**: 13.5+ Years |
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