CONTINSOUZAS Bastien

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43 y.o. / 20 years of experience

Software / System Integration Engineer
Satellite and Aircraft Avionics

Skills

Space Tech:	Functional Avionics, Flight Software, Satellite Database, Fault Detection Isolation and Recovery, On-Board Computer, Comm. Bus (SpaceWire, CAN), CCSDS Space Packet, ECSS Packet Utilization Standard.
Project Tools:	Jira, Confluence, MantisBT, DOORS
Development Tools:	Git, Subversion, Jenkins, GitLab, CodeSonar, GCC, CMake
Other Tools:	Grafana, PostgreSQL, InfluxDB, VMware, QEMU, Wireshark, JTAG
Operating Systems:	Linux (x86, ARM), RTOS (PikeOS/PPC, XtratuM/ARM)
Languages:	C (Embedded/MISRA), Python, Shell, Java, SQL

Professional Experience

01/2017 – Present: Airbus Constellations Satellites

Technical Lead for the development of the On-Board Software used on the avionics platform for OneWeb satellites and Arrow satellite bus with over 650 units produced and in operation:

- Oversee development of Flight Software evolutions and corrections: identify improvements based on in-orbit feedback, collect technical inputs from architects and technical managers, conduct software Change Control Board meetings
- Ensure integration of Flight Software on On-Board Computer and prepare test configurations for Functional Validation activities on simulator and on test hardware (Flatsat)
- Develop tooling to enable software loading on satellite On-Board Computer during production and in-orbit and tooling for automated satellite data generation during production
- Deliver integrated Flight Software configurations, associated documentation and satellite database exports for use during satellite production and to customers for in-orbit deployment
- Provide technical support internally for serial satellite production and to customers for in-orbit operation: trainings, investigations, non-conformance review boards…

03/2015 – 10/2016: Thales Alenia Space (for Viveris) / Space Gate R3

Technical Lead for the development of modulator/demodulator equipment for the new release of a satellite access network solution based on DVB standards developed by Thales Alenia Space:

- Manage a team of 4 developers (scheduling, code review and merge, documentation review), implement new functionalities and administrate development toolchain (git, Jenkins)
- Handle customer / product owner relationships (sprint planning and review, deliveries) and provide technical expertise for integration teams

06/2012 – 12/2014: Airbus (Independent Contractor) / On-board Information Systems A350

System Integration and Verification on the FSA-NG Avionics Server Function, a certified (DO-178B DAL C) A350XWB On-board Information System hosting flight-ops and maintenance applications:

- Integrated hardware modules (developed by Airbus and Rockwell Collins) and software subsets (OS, platform management, file system, dataloading, BITE) in the complete system
- Defined and executed formal verification procedures for the complete system, developed specific test tools and provided support for certification reviews relying on test results
- Provided technical support for hardware and production teams working on the system development and for end users (Ground and Flight Test teams, Final Assembly Line)

11/2009 – 12/2011: Rockwell Collins (for Amesys) / On-board Information Systems A350

Systems Engineering / Software Integration on the FSA-NG Open-world Server Function, an A350XWB On-board Information System hosting flight-ops and maintenance applications:

- Integrated software modules delivered by Rockwell Collins software teams located in France, USA and India
- Provided technical proposals to improve system design and test means based on feedback from integration of software modules with target hardware
- Tracked project issues reported by the customer (ClearQuest) and provided technical clarification to software team to help solve anomalies

11/2004 - 11/2009: Early projects (for Viveris and Alyotech)

- Research & Development On-board Information Systems (Airbus Design Office – 15 months): Coordination of a team of 5 engineers taking part in various R&D projects, support of project leader for task management, relationship with project partners (Thales, ONERA) and risk management, preparation of TRL reviews
- FlySmart ANSU (Rockwell Collins – 10 months): Software development of an upgrade for the On-board Information System installed on Airbus A340 and hosting applications used by flight crews and maintenance crews (C++/Corba, Java/Swing, ANT, CruiseControl)
- Real-Time Hydrologic Database (Thales – 8 months): Design and implementation of a system used 24/7 to collect, process, store and distribute data used to forecast floods in France (Python, PostgreSQL, Linux/RHEL, PHP, SOAP, WSDL, Apache)
- Test Resources Management (EADS Test & Services - 12 months): Development of new functionalities and bug fixing on the Test Resources Management product, an application facilitating the management of obsolete testing equipment (Python, C, wxWidgets)
- AFDX Toolkit (internal R&D project - 5 months): Feasibility study and implementation of a tool for analysis / generation of AFDX communications using standard Ethernet cards (C++).
- Computer-Aided Ground Tests (EADS Test & Services - 6 months): Software Maintenance and Upgrade for the ESAO project used to manage test procedures and results for the A320/A340 Final Assembly Lines (C, HP-UX, Oracle).

Education

2004: Software Engineering Degree from INSA Toulouse (National Institute of Applied Sciences)
Master's Degree in Computer Science from System Doctoral School (Toulouse)

Language Skills

French: Native proficiency

English: Professional working proficiency (TOEIC score: 945, worked with US teams)

German: Elementary proficiency