

Jeremie Despringre

Energetic software engineer with 13 years of aerospace experience

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Relevant Experience

R&T Technical Lead - Safran Cabin — 2024 – Present

- Lead the Research & Technology initiatives for connected IoT products and cloud solutions in commercial aircraft.
- Develop innovative IoT solutions for aircraft cabin equipment monitoring and control.
- Design and implement AWS cloud-based architectures for real-time data processing and analytics.
- Drive the digital transformation of cabin equipment through smart, connected solutions.
- Architect scalable cloud infrastructure for aircraft-wide IoT deployments.
- Collaborate with cross-functional teams to integrate IoT solutions with existing aircraft systems.
- Conduct sprint planning and sprint review in agile environment.

Software Lead Engineer - Safran Cabin (Commercial inserts) — 2016 – 2024

- Led the full lifecycle development (design, build, test, sustainment) of safety-critical embedded software (C), delivering approximately 10 certified releases (up to DO-178 Level C) across 6 distinct aircraft product lines.
- Directed and mentored a team of 3 software engineers, fostering skill development and ensuring project milestones were met.
- Managed external suppliers for control electronics, achieving a 50% reduction in operational costs through strategic negotiations and process optimization.
- Enhanced product performance and reliability by resolving complex hardware/software integration challenges, notably improved PID temperature control and reduced air chiller power consumption via variable-speed algorithms.
- Developed and deployed open-source Python tools for automated hardware/software integration testing, improving test efficiency.
- Spearheaded the implementation of a robust configuration management system (Codebeamer, Git), standardizing processes across the business unit.
- Contributed significantly to software department strategy, including annual budget preparation, resource planning, and leading engineer hiring interviews.
- Represented Safran expertise as an active member of the international SAE ARINC812 Committee (Aircraft Galley Communication Standard) since 2018.
- Served as interim Airbus Design Assurance Coordinator during engineering transfer, holding responsibility for reviewing and approving all design changes across multiple departments.
- Designed control electronics hardware and software utilizing various microcontrollers (Arm Cortex M0/M4, Infineon XE167).

Software Engineer - Zodiac Aerospace (Germany) — 2015 – 2016

- Supported Airbus directly at the Hamburg FIB test rig for engineering needs.
- Managed software integration efforts across three international engineering teams (France, Germany, USA) and facilitated intellectual property transfer between Zodiac Germany and Zodiac USA.
- Contributed to the verification of five critical products for the A350 program (ovens, coffee makers, fridges).
- Engineered a Python QT application to parse and simulate CAN live traffic data for A350 systems.

Technical Skills

Programming languages:

C, C++, Python, Javascript, HTML, Delphi, SQL, Go.

OS & RTOS:

Linux, Windows, Debian, Ubuntu, uCOS II, FreeRTOS, Mbed.

Frameworks & Libraries:

Qt, GTK, Django, Flask, nicegui

Development Tools:

VSCode, Cursor, Eclipse, Code Composer Studio, Atollic TrueSTUDIO, Tasking, GCC, C166, LabVIEW

Hardware & Embedded:

Microcontrollers (STM32, MPC55XX, XE167FM), CAN, SPI, I2C, UART, RS232, WiFi, FPGA

Databases & Cloud:

AWS S3, IoTCore, Lambda, SQL, MS-SQL, Redis, Redshift

Version control:

Git, SVN, CodeCommit, GitLab

Project/ALM:

JIRA, Codebeamer, Jenkins, Redmine, DOORS, Confluence, MkDocs

Containerization:

Docker, KVM, Chroot, Virtualbox

Standards:

DO178, DO160

Professional network

SAE ARINC812/853 Member

Education

PARIS INGESUP

Master in computer science - 2011

Cachan Institute of Technology

Bachelor in Electronics - 2007

Languages

French (Fluent)

English (Fluent)

Software Engineer - Zodiac Intertechnique (France) — 2012 – 2015

- Engineered Linux scripts and Python applications for testing aircraft screen hardware connections, utilized across production test benches to validate up to 32 IFE screens simultaneously and retrieve data from over 500 screens.
- Collaborated within a software team of 20-30+ engineers to develop and maintain these critical applications
- Significantly contributed to the development of a custom Debian-based live operating system, loaded via USB for in-RAM operation on production laptops
- Developed and integrated a C++ Built-In-Test (BITE) application for an embedded camera system on the A380 aircraft
- Developed firmware for a fiber optic switch with uCOS II RTOS on an MPC55XX.

Software Developer - ABACOM Informatique (France) — 2008 – 2011

- Maintained and updated core freight transport software written in Delphi, ensuring continued operation and reliability for a small company.
- Provided technical support and managed deployments of MS-SQL databases for customers
- Architected and developed a critical internal software network facilitating the exchange of goods among 30 customers
- Developed a customer-facing tracking website using PHP/HTML, enabling customer to track shipments.

Electronic Technician - CNRS - National Center for Scientific Research (France) — 2007

- Created a LabVIEW application to control a Texas Instruments camera, contributing to hardware evaluation for a MARS robot research project
- Collaborated on the design of electronic boards controlling lasers for conceptual solar research projects