

Tristan MAITRE

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SYSTEMS ENGINEER

Specialization - Aerospace & Complex Systems



Driven by my curiosity and attention to detail, I am a **problem-solver** and **questions-asker**, good at thinking in systems, communicating ideas, and adapting to change.

Holding a MSc in Aerospace Engineering and a BSc in Aviation, I have proven experience in the application of advanced methods in the fields of **product quality & planning**, **requirement engineering**, **system design**, **testing**, and **certification**.

My ambition is to **enable sustainable solutions to real-world problems**, with a special focus on the integration of new mobility technologies in society.

EXPERIENCE

● 11/2018 - 06/2020

APSYS Product Assurance & Safety Aerospace 📍 Toulouse, France
System Designer - Airbus Surveillance (ATA34) Design Office

Product development for more integrated & automated cockpit functions

- Perform technical analysis on requirements, constraints and business case
- Specify and model future systems for traffic, terrain & weather avoidance
- Liaise with flight operations, test, and suppliers to launch industrial phase

V&V Focal Point - A/C Condition & Monitoring (ATA31) Design Office

Coordinate acceptance testing activities for Aircraft Data Collection function

- Implement a test strategy for each new embedded software standard
- Establish procedures for test bench, simulator and flight test
- Follow-up of suppliers for system delivery to the defined requirements

● 04/2018 - 10/2018

📖 *MSc in
Aerospace Eng.*

AIRBUS Operations SAS - Flight & Integration Tests 📍 Toulouse, France
Master Thesis - Avionics / Flight Management Testing

Assess the feasibility of Virtual Testing as a new test mean under DO331

- Conduct feasibility study on integrating FMS software on virtual platforms
- Perform functional and back-to-back tests to assess representativeness
- Make recommendations to pursue virtual testing for system integration

● 09/2015 - 07/2016

📖 *BSc in
Aviation*

Skyguide - Swiss Air Navigation Services Ltd. 📍 Geneva, Switzerland
Internship - Innovation & Change Management (ICM)

Support Head of ICM in defining new processes & methods at PMO level

- Develop a Company Roadmap to align functional and company strategies
- Propose a structure for the external funding in innovative projects
- Submit an White Paper on innovation in the Air Traffic Management area

● 01/2012 - 09/2012

RUAG Aviation Subsystems & Products 📍 Interlaken, Switzerland
Internship - Sales and Marketing

Support product owners in producing factsheets, invoices, contracts and certification papers for MRO services and aviation sub-systems.

TECH SKILLS



MATLAB-Simulink
UML, SysML



Python / Java
C / C++



3DX CATIA
Solidworks



Safety analysis
Certification
(ARP & RTCA Standards)



Technical Writing
DOORS



Product
Development

SOFT SKILLS



Solution-oriented
System thinker



Flexible &
Open-minded



Proactive
Team Player

LANGUAGE SKILLS

FRENCH **NATIVE SPEAKER**

ENGLISH **FLUENT (C1+)**

GERMAN **PROFICIENT (B2)**

● 08/2016 - 09/2018

Institut Supérieur de l'Aéronautique et de l'Espace  Toulouse, France
Master of Science in Aerospace Engineering
Track Aerospace Systems - **Major** Systems Engineering

● 04/2017 - 04/2018


Master Thesis
Airbus Operations SAS | Flight Management System Test Lab
FMS Virtual Testing Demonstrator
 Assess the feasibility of Virtual Testing (more in experience section / page 1)

● 01/2017 - 04/2018

Research Project
ISAE-Supaero | Department of Complex Systems Engineering
Model-Based Approach for Safety Analysis of Human-Machine Interactions
 Develop a Model Based System Engineering methodology to assess the overall reliability of an aircraft system implying the human-in-the-loop, extending ARP4761

- Identify unsafe control actions in aircraft procedures (STPA, STAMP)
- Model pilot tasks in nominal and abnormal situations (Petri Nets, Event-B)
- Analyse human errors in task models as a tool for system architecture trade-off.

● 09/2012 - 07/2015

Zurich University of Applied Sciences (ZHAW)  Winterthur, Switzerland
Bachelor of Science in Aviation
Major Technical Management & Engineering

● 01/2015 - 07/2015

Bachelor Thesis
Center for Aviation (ZHAW) & Meteomatics GmbH
Preliminary Study on a Passive Rescue System for UAVs
 Assume the technical lead to develop a safe, robust and maintenance-free rescue system for drones: from concept to flight testing
 (Flight dynamic analysis, Project Mgmt, CAD: MATLAB Simulink, CATIAV5, Arduino)

● 09/2014 - 12/2014

Project Thesis
Center for Aviation (ZHAW) & SilentFlight DESiE e.V.
Design of Control Surfaces for a Light Aircraft in Canard Configuration
 Conduct feasibility study to investigate roll authority & lateral-directional behaviour
 (Aerodynamic & Flight dynamic Analysis: MATLAB - Simulink, AVL)

● 09/2014

Flight Test Lab (Nordholz, DE)
Center for Aviation (ZHAW) - FH Aachen
Lateral & directional stability of light aircraft
 Assess the stability of a Piper PA28 with flight tests
 (MATLAB - Simulink)

● 09/2013 - 02/2014

Transport Engineering Project
Institute of Data Analysis (ZHAW) & Swiss International Air Lines
Study on optimum flight speed in case of slot delays
 Demonstrate the fuel savings potential of reducing the cruise speed and thus avoiding holding patterns at destination.
 (MATLAB, Java)

INTEREST & HOBBIES



Flying (EASA PPL SEP)



Mountain Biking



Hiking



Digital Making



Cognitive Sciences



Architecture & Design

ACHIEVEMENTS & CERTIFICATES



EASA Flight Crew Licence
 Private Pilot Licence (A) (2018)
 Single-engine piston classrating



Cambridge English Language Assessment (2015)
 Certificate Cambridge Advanced English (CAE)
 Level C1

REFERENCES

Contact & further references
 available upon request

David CARLU
 Senior Surveillance System Designer | AIRBUS Operations SAS | Toulouse, FR

Raphaël MICHEL
 Head of Operations Architecture & Portfolio Management | Skyguide | Geneva, CH

Moussa SFEIR
 FMS Test Engineer - Avionics Testing | AIRBUS Operations SAS | Toulouse, FR