Tristan MAITRE

🌐 tristanmaitre.pro
📅 11 September 1991
➕ Swiss
✉ tristan.maitre@bluewin.ch
📞 +41 79 515 67 05
Ⓢ live:tristan.maitre_1
in linkedin.com/in/tristanmaitre

SYSTEMS ENGINEER
Specialization - Aerospace & Complex Systems

Driven by my curiosity and critical thinking, 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 management, requirements engineering, system design, testing, and certification.**

My ambition is to **enable sustainable solutions to real-world problems**, with a special focus on human-system integration & performance in safety-critical domains.

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 DO-331
• 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

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

BSc in Aviation

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

Python / Java
C / C++

MATLAB-Simulink
UML, SysML

Safety analysis
Task Modelling

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+** - CAE Certified **)**
GERMAN	**PROFICIENT (B2)**

EDUCATION

08/2016 - 10/2018

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

04/2018 - 10/2018

Master Thesis
Airbus Operations SAS | Flight Management System Test Lab
FMS Virtual Testing Demonstrator
Assess the feasibility of Virtual Testing undero DO-331*(see Experience section)*

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 human controller tasks in nominal/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, 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)

CERTIFICATES

CS50x - Harvard University (2020)
Introduction to the intellectual
enterprises of computer science and
the art of programming

ATSEP Basic Training · Skyguide (2016)
Air Traffic Safety Electronics Personnels
training designed to impart fundamental
knowledge of the CNS-ATM environment

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

Agile Fundamentals (2020)
Including Scrum and Kanban
The BA Guide Online course on Udemy

INTEREST & HOBBIES

Flying (EASA PPL SEP)   Mountain Biking   Hiking

Digital Making   Cognitive Sciences   Architecture & Design

REFERENCES

*Contact & further references
available upon request*

Senior Surveillance System Designer | AIRBUS Operations SAS - Toulouse, FR

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

Aicraft Condition & Monitoring System Architect | AIRBUS Operations SAS - Hamburg, DE