europass

Michele Pio SAVINO

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WORK EXPERIENCE

01/2022 – CURRENT Torino, Italy

SPACE DEBRIS ENGINEER THALES ALENIA SPACE

- Assessment of requirements and countermeasures related to *Re-entry Safety* and *Space Debris Mitigation* (ECSS, ISO, NASA standards).
- Performing EoM disposal, destructive re-entry, debris impact vulnerability analyses.
- Redaction of Space Debris Mitigation Plans and technical reports.
- Flow down of technical requirements at system/subsystem level.
- Development and maintenance of internal tools (Python, Fortran, Excel).
- Point of Contact of Space Environment disciplines for Italian In-Orbit Servicing program.

11/2021 – 01/2022 Toulouse, France

RESEARCH ENGINEER IRT SAINT EXUPÉRY

- Literature study on guidance and control advanced techniques for small satellites proximity operations and rendez-vous.
- Development of a linear relative dynamics model assuming flexible satellites.

04/2021 – 09/2021 Cannes, France

MISSION ANALYSIS ENGINEER INTERN THALES ALENIA SPACE FRANCE

- Prototyping, development and validation of a multipurpose optimization library (JAVA, MATLAB, FORTRAN)
- Test on Flight Dynamics Applications: GTO-GEO Electric Orbit Raising manoeuvre optimization, GEO Station-keeping maneuvers planning, with mission and operational constraints (OreKit).
- Integration of the library in the Flight Dynamics Software of a GEO Telecom platform.

03/2020 – 03/2021 Toulouse, France

MISSION ANALYSIS RESEARCH ASSISTANT SACLAB (ISAE-SUPAERO)

- Development of stochastic global optimization algorithms for In-Orbit Servicing mission, with multi-target visiting sequence scheduling and mission scenario optimization
- Built database of debris and non-operational satellites in GEO
- Collaborated with 6 students to design the “Recycler” spacecraft main subsystems.

EDUCATION AND TRAINING

2019 – 2021 Toulouse, France

MASTER'S DEGREE (DIPLÔME D'INGÉNIEUR) ISAE-SUPAERO

Field of study Space Systems - Contol Systems

2018 – 2021 Torino, Italy

M.SC. IN AEROSPACE ENGINEERING Politecnico di Torino

- Double Degree Program with ISAE-SUPAERO (1st selected out of 100 candidates)
- Master's Thesis in collaboration with Thales Alenia Space France

Final grade 110/110 cum Laude |

Thesis Development of a Nonlinear Optimization Solver for Space Flight Dynamics Applications

2015 – 2018 Torino, Italy

B.SC. IN AEROSPACE ENGINEERING Politecnico di Torino

- Participation in "Young Talent's Project", dedicated to 200 top students selected each year

Final grade 110/110 cum Laude | **Thesis** Analysis of turbulent flow in a plane channel using complex network theory

2018 – 2018 Paris, France

ACADEMIC EXCHANGE Centrale Supélec

Toulouse, France

CERTIFICATION "DATA SCIENCE & BIG DATA INTRODUCTION" Université de Toulouse

LANGUAGE SKILLS

Mother tongue(s): **ITALIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
FRENCH	C1	C1	C1	C1	C1
ENGLISH	C1	C1	C1	C1	C1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

Programming

Django Framework | Python | Java | Fortran | MATLAB | C++ | C# | OREKIT

Software Development

Docker | Git | CMake | Build automation: Maven, Gradle | Unit-Testing

Office

LaTeX | Microsoft Office

Operating systems

Linux | Windows

IDE

Eclipse | Visual Studio Code, Visual Studio | JetBrains Intellij Idea

Software

Simulink | DOORS | MASTER, DRAMA, ESABASE2