Rojo Princy ANDRIANANTARA

M.Sc. A Candidate in Aerospace Engineering
Research Assistant

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Professional experience

09/2019 – today	**Research Assistant**, Research Laboratory of Active Controls, Avionics and Aeroservoelasticity (LARCASE), ÉTS, Montreal
	Aircraft Performance studies, Aircraft System Modeling and Simulation, Optimization, Thrust and fuel consumption prediction, Engine Modeling, Aerodynamic studies. Flight tests on simulator.
05/2020 – today	**NSERC CREATE** Uninhabited Aircraft Systems Training, Innovation and Leadership Initiative, Carleton University, Ottawa
	Mathematics of Information Technology and Complex Systems Professional training: project management, communication skills, leadership. UAV design and applications.
06/2018-08/2018	**Industrial Internship**, 2 months, Vympel Company, Moscow, Russia
	Aircraft weaponry studies and maintenance.
12/2018 – 05/2019	**Laboratory Intern**, 7 months, Flight Dynamics Laboratory, Moscow Aviation Institute (MAI), Russia
	Flight tests on flight simulator, experimental studies, trajectory optimization, pilot performance modeling.

Education

09/2019 – 05/2021	**Master's Degree in Aerospace Engineering (M.Sc.A.)**, ÉTS, Montreal
05/2020 – 05/2021	**NSERC CREATE** Uninhabited Aircraft Systems Training, Innovation and Leadership Initiative, Carleton University, Ottawa
09/2015 – 06/2019	**Bachelor's Degree in Ballistics et Aerohydrodynamics (B.Sc.) – with Distinction**
	Major in Flight Dynamics and Aircraft Controls, MAI, Moscow, Russia
09/2014 – 06/2015	**Preparatory Course in Russian language**, MAI, Moscow, Russia
09/2011 – 06/2014	**High School Certificate, major – Science, mention – Excellent.**
	Lycée Français Peter Pan, Antananarivo, Madagascar

Key projects

09/2019 – 05/2021	**Master's degree thesis** – title: "Identification and Validation of a Propulsion Model from Flight Tests."
	Aircraft modeling and simulation. Neural Networks application. Engine Component Modeling. Thrust and fuel consumption prediction. Engine health diagnostic. Flight tests planning and realization on simulators.
05/2020 – 05/2021	**NSERC CREATE UTILI** – title: "UAV Coastal Oil Spill Detection and Bioremediation".
	Project management, UAV design and application, Mission design, UAV sizing, Market assessment, Cost estimation, Payload integration, Trade studies.
05/2019	**Bachelor's degree final project** – title: « Design of Aircraft Lateral motion Stabilization System»
	Aircraft performance analysis. Trajectory optimisation. Autopilot design: SAS, CAS, Speed-Hold, Heading-Hold, Altitude Hold, Waypoint tracker, Automatic-turn system, roll angle stabilization, Thrust-Hold.

Professional skills

Programming	MATLAB, FORTRAN, VBA, CTS, C/C++,
Engineering	MATLAB/Simulink, MS Office, Latex, Solidworks, Fluent.
Equipment	Flight Simulators, Wind Tunnel.
Languages	French, English, Russian, Malagasy, German.
Soft skills	Teamwork. Project management. Research. Data gathering and analysis. Simulation and Aircraft System Modeling. Writing Articles and Reports.
Research interests	Propulsion, Controls, Flight Dynamics, Aerodynamics, UAV design and application, Artificial Intelligence.

Awards and Scholarships

07/2020	AéroÉTS Scholarship "Bourse d'Excellence", ETS competition.
05/2020	NSERC CREATE UTILI Scholarship
Winter – Summer Fall 2020	Exemption from additional tuition fees for foreign students, ETS competition.

Other interests

Music, Swimming, Cinema, Theatre, Travels, Piano.