STEFANO CERUTTI

514-268-5843 | cerutti.stef@gmail.com | www.linkedin.com/in/stefcer

SUMMARY OF SKILLS AND QUALIFICATIONS

Operating Systems | Windows • Mobile • IOS • macOS

Applications | Microsoft & Google Applications • MATLAB

Programming| Python • C++ • VBA • JavaScript

Other| AutoCAD • SolidWorks • Visual Studio • 2D CAD • 3D CAD • HTML

Machining Tools |CNC • Milling Machine • Manual Lathe • Drill Press • Sawing • Acoustics instruments (SLM)

Languages | English (Fluent) : Spoken & Written • French (Fluent) : Spoken & Written • Italian (Intermediate)

EDUCATION

Bachelor of Engineering – Mechanical Engineering Co-Op **2020-2025 (Graduated)**
Concordia University, Montreal, QC.
- Member of the Institute for Co-Operative Education
- Relevant Courses : Applied Advanced Calculus, Statics, Dynamics, Thermodynamics, etc.

DEC in Sciences de la Nature **2018-2020 (Graduated)**
Collège Jean-de-Brébeuf, Montreal, QC.
- Program : Pure and applied science

Diplôme d'études secondaires **2013-2018 (Graduated)**
Collège Notre-Dame, Montreal, QC.

PROJECTS

Urban Ecology Rover (Capstone – Educational) 2023-2024
- CAD Design: Using Solidworks, focused on innovative design for all-terrain rover with a modular cargo bay.
- Manufacturing: Led initial design to hands-on assembly of the rover, ensuring practical application and durability.

Electronic Circuit Flip-Flop Counter LEDs (Educational) 2022
- Manipulated all types of logic flip-flops, transistors, op-amps, resistors, etc.

Artificial Intelligence Chatbot (Personal) 2021
- Self-learning program, led to usage and expanding knowledge of C++.
- Manipulate classes, objects, memory, etc.

Study of the Thermoelectric Effect (Educational) 2020
- Completed an experimental research project in a team of three people around the subject of transforming renewable energy into electricity.
- Our goal was to answer the need for new sources of renewable energy and the optimization of these energy sources that have become the priority for many around the world.

WORK EXPERIENCE

Thermodynamics Internship **August 2023 – September 2024**
Airbus Canada, Mirabel, Quebec
Location : Airbus Site Mirabel (A220)

- Heavy understanding and development of thermodynamics with numerous experienced professionals.
- Focus on aircraft (A220) air inlets and outlets. Developed a C++ tool allowing the user to define an inlet under various conditions and obtain key results such as drag and pressure recovery.
- Developed a decompression analysis tool using Python to simulate various models and breach scenarios, providing critical insights for aircraft safety. This role required a deep understanding of both decompression dynamics and advanced coding skills.
- Tool development projects, gather knowledge and expert insights, validation & verification, and creation of effective user manuals and developer guides.

Engine Performance Internship **January 2023 – August 2023**
Airbus Canada, Mirabel, Quebec
Location : Airbus Site Mirabel (A220)

- Understand the engine performance data generation and validation process.
- Develop, modify, and optimize this process by creating programs in C++.

Developing the following skills :

- Applied engine performance knowledge through interaction with specialists and on-the-job training.
- Programming in MATLAB, VBA code and C++.

Test & Project Engineer Internship **August 2021 – February 2022**
Bombardier Aerospace, Montreal, Quebec
BAEX (Bombardier Aerospace Experimental) Department
Location : Airbus Site Mirabel (A220)

- Support test activities on system, structural and dynamic test simulators (ISTCR, CSTR, ESIM, SITS) for Bombardier aircraft programs at CIASTA (Complete Integrated Aircraft Systems Test Area), now owned by Airbus.
- Perform in-flight cabin noise surveys on production aircrafts and generate reports for the Acoustics department. Flew on the Global 7500, Global 6500, Global 5500 & Challenger 650.
- Lead Test Readiness Reviews (Teams meetings) with various Airbus A220 aircraft system groups.
- Post-process and archive data produced by the rigs and ensure its quality is in line with internal customers.

AWARDS

Bourse d'Études Hydro-Québec Scholarship 2022
Academic achievement : excellent grades. Renewable with continuing full-time enrolment and a GPA of minimum 3.20.

REFERENCES

Prof. Lyes Kadem, PhD, Ing
Professor Department of Mechanical, Industrial and Aerospace Engineering
Concordia University, Montreal, Quebec
Phone: (514) 848-2424 ext. 3143 & Email: lyes.kadem@concordia.ca
Dr. Hany Gomaa, PhD
Professor Department of Mechanical, Industrial and Aerospace Engineering
Concordia University, Montreal, Quebec
Phone: (514) 848-2424 ext. 7035 & Email: hany.gomaa@concordia.ca
Amir Borna, PhD
Head of A220 Engine Performance, Acoustics and Thermodynamics
Airbus Canada, Mirabel, Quebec
Email: amir.borna@airbus.com