KAYWAN SANJARI

(514) 805-9186 ⋄ Montréal, QC ⋄ Bilingual : English and French

kaywan.sanjari@gmail.com ⋄ Personal Portfolio Website ⋄ www.linkedin.com/Kaywan-Sanjari

EDUCATION

Polytechnique Montréal   Montréal, Québec
Bachelor of Electrical Engineering with a minor in Automation   2019-2023
GPA : 3.37/4
Relevant coursework : Object-Oriented Programming (C++), Microcontrollers and Applications (C), Image Processing (Python), Operating systems and hardware interfaces (Linux), Avionics Systems

SKILLS

Programming Languages	C/C++, Python, MATLAB, VHDL, HTML, CSS, JavaScript
Design/Simulation Tools	Xilinx Vivado, QNX Neutrino (HIL), SIMULINK, LTSpice, Keil UVision,AGI32
Development Tools	Git, GitHub, Azure DevOps, BitBucket, React, ClickUp
Platforms	Linux, Windows, Visual Studio, VS Code, Anaconda, Spyder, Jupyter Notebook

RELEVANT EXPERIENCE

Electrical Engineer Intern - International Mars Ice Mapper mission   May 2023 - Aug. 2023
Canadian Space Agency / Agence Spatiale Canadienne   *Longueuil, QC*

- Implemented a Python-based image data compression algorithm with bit-plane encoding and object-oriented programming to support the International Mars Ice Mapper mission.
- Worked with multiple Python environments in Conda using packages such as Numba, NumPy, GDAL.
- Simulated Synthetic Aperture Radar imaging in MATLAB using the Range-Doppler Algorithm.

Electrical Engineer Intern - Smart Cities (LED Road Lightning Conversion)   May 2022 - Aug. 2022
Énergère   *Montréal, QC*

- Conducted the design and analysis of road LED lightning conversion projects in AGI32.
- Analyzed data related to luminaires from cities and municipalities in Quebec on ArcGIS.
- Prepared multiple feasibility studies for luminaire selection using agile tools like ClickUp.

PROJECTS

Battery Management System controlled by an embedded system   Sept. 2022 - April 2023
Polytechnique Montréal in collaboration with Rheolution Inc.   *Montréal, QC*

- Developed, in a team of six people, a power supply module and charging management system for a Lithium-ion battery controlled by an embedded system.
- Designed electrical circuits (USB Power Delivery, PowerPath and others) after analyzing applicables IEC standards and simulated Lithium-ion battery's state of charge on MATLAB/SIMULINK.

Google Chrome Dinosaur game on an embedded system   Nov. 2022 - Dec. 2022
Polytechnique Montréal   *Montréal, QC*

- Developed, in C (Keil Uvision), the Chrome Dinosaur game on an STM32 family microcontroller with LCD screen and controlled with a ultrasonic sensor.
- UART communication allowing a multiplayer mode between two microcontrollers through infrared.

Touchless automatic sensor garbage bin with telecommunications features   Feb. 2022 - April 2022
Personal project   *Montréal, QC*

- Developed, in C++, a garbage bin with automatic opening by hand or by voice detection.
- Telecommunication features allowing the embedded system to send an SMS after detecting the bin is full.