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Sam Anthony

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Education

2023–2026	Bachelor of Computer Science	Montréal, QC
	<ul style="list-style-type: none">• GPA: 4.02 out of 4.30.• All credits completed, graduating June 2026.• Concordia University, dean's list.	

Employment

Summer 2025	Software Development Intern, C-CORE	St. John's, NL
	<ul style="list-style-type: none">• Developed software for the MUNStar-1 Cube-Satellite.• Wrote and tested MISRA-compliant C firmware with FreeRTOS for the Zynq 7000 SoC's ARM Cortex A9 cores.• Implemented reliable communication protocol over CAN.• Modified C preprocessor to generate serialization code.• Wrote test framework code generator to produce PlantUML statechart from list of system tests.• Built redundant storage firmware module with integrity checking.• Unit-tested SIL simulation system, and extended it with mock filesystem.• Performed HIL testing in cleanroom.• Used GNU Radio to assist in revamping GFSK radio flowgraph.	

Projects

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Automotive gauge driver with CAN interface

- Electronic device that drives up to six analog gauges using CAN bus data.
- Designed hardware (PCB) with PIC microcontroller, MCP2515 CAN controller, EEPROM, and DACs.
- Used SPI for inter-chip communication.
- Wrote C firmware, Go calibration software, Python bit-timing script.

Volute

- Graphical turbocharger selection program.
- Thermodynamic model of internal combustion engine and compressor.
- Written in C using microui.

Skills

Programming in Ada, C, C++, Go, Java, Python.

Embedded systems design and programming with PIC, STM32, ESP32 microcontrollers; Zynq 7000 SoC; FreeRTOS; state machines.

Concurrent programming with threads, Open MPI, Go, Ada, FreeRTOS.

Parallel programming with OpenMP, TBB, OpenCL.

Networking – TCP/UDP/IP, 9P, CAN, RS-485, SPI, I²C.