

ROBERT SAWLTON

FPGA Design Engineer

@ robertsawilton33@gmail.com 📍 Canada, Manseau QC

SUMMARY

Performance-oriented electrical engineering specialist with over 20 years of experience. Expertise in hardware design and program management.

Excellent technical and leadership skills.

- Defines architectures, establishes vendor relationships, designs boards and FPGAs, and takes products through regulatory compliance into volume production.
- Significantly raised productivity levels by establishing procedures and design methodologies.
- Proven ability to build strong relationships with staff and supporting departments.
- Strong leader with motivational skills creating team cohesiveness and driving team results performance above individual abilities, consistently surpassing management expectations.
- Self-motivated and an innovative thinker, consistently pursuing new challenges to stretch abilities, expand knowledge, and bring greater returns to employers.

EXPERIENCE

FPGA Design Engineer 06/2019 - 01/2023
Flatley Inc Detroit

- Expertise in Verilog, VHDL, System Verilog
- Expertise in bit and cycle accurate modelling in MATLAB/C/C++ and HDL
- Experience with FPGA design and implementation of board design and management of a large system
- Rich experience with DDR3/4, SPI/I2C, JESD204B and PCIe interfaces
- Experience with model-based signal processing flows such as MATLAB, Simulink, HDL Coder and integration with FPGA devices such as Xilinx and Intel
- Experience in creating a structured test plan and test cases derived from system requirements
- Experience with scripting and programming languages such as Python, C, C++
- Experience using simulation tools such as Modelsim and Questasim

FPGA Engineer 10/2017 - 05/2019
Jakubowski Group Detroit

- Experience successfully completing development from concept to production and field deployment
- Demonstrated knowledge of FPGA and SoC use in relevant applications
- Architecting and specifying digital systems
- PhD in Electrical or Computer Engineering with relevant industry experience
- Prior experience working with cryptography, guidance, navigation or communication systems
- Work presentation and proposal, white paper writing experience
- Active security clearance strongly
- An expert level working knowledge of electrical engineering concepts/principals

FPGA Design Engineer 08/2015 - 09/2017
Jerde Group Detroit

- Expertise in implementing complex FPGA IP design and resolving complex resource and timing closure challenges
- Determine architecture, system verification and detailed design approach
- Define module interfaces and all aspects of device design and simulation coordinated with the PC Board Designers
- Evaluate the process flow including but not limited to high level design, synthesis, place and route, timing constraints and power utilization
- Develop test, simulation plans and design verification test plans at design top level

SKILLS

Technology

FPGA design and implement ·
microController · Digital Circuit design ·
Analog Circuit design ·
Team management ·
PCB design and implement ·
Embedded System Design & implement

Programming & Development tools

Verilog HDL · VHDL · System Verilog ·
PIC · Arduino · Xilinx/Quartus · Vivado ·
ModelSim · Arduino IDE · MatLab ·
Simulink · Agile

EDUCATION

Bachelor of Electrical Engineering

Rutgers University
04/2014

Master of Electrical Engineering

Rutgers University
01/2015

LANGUAGES

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|---------|----------|-------|
| English | Advanced | ●●●●● |
| Chinese | Advanced | ●●●●● |