YAN **BELLAVANCE**

6059 impasse de la Coupe Saint-Hyacinthe, J2T 0B1 | 450-778-2446 | 438-398-3588 | yanbellav@gmail.com

**CAREER PROFILE**

In 2006, while finishing college, I was writing my final year research paper on  
quantum dots for a photonics class. I also had the opportunity to do research in  
holographic storage media technology. Best subjects I could ever hope for before  
moving on to the real world! As you can see, I originally came from a more  
hardware/physics engineering branch of academics:  
 Technologist degree in telecom electronics (3 years)  
 Bachelors of Electronics Engineering (4years inc. 3 master's courses)

But all this hardware logic and science had 1 goal and that was to support the  
software. Ever since the beginning of my schooling I made sure to push myself to  
become a great programmer. I have software written in Qt that runs at a couple of  
NASA bases and the us airforce. The Alpha version had 0 bugs, it was a first for  
them.  
   
After 12 years out of school, looking back, school looked tiny in comparison with  
everything I learned in the corporate world and self involvement afterwards.  
 Wether its algorithms, signal processing, optimizing, writing drivers, high level,  
low-level, whatever is challenging that I can resolve to make a project go smooth  
and be succesfull keeps me happy and I love my work so it's not always work:)  
path or not. In either case I like your pitch.I recenty acquired experience in cloud  
computing and have done some HPC on FPGA, GPU.

In regards to support, well I always seem to have the customer on my side and in  
regards to teamwork well I hope to be a key player anywhere I work with keen  
interest in leadership opportunities

**TECHNICAL QUALIFICATIONS**

VB .NET, scripting, Agile, Ant, API, Architect, Automation, C, C++, Canvas, CGI,  
CodeWarrior 6.x, Hardware, CSS, Customer Support, debugging, LCD, layout,  
Documentation, DOORS, Edge, Embedded C, Embedded systems, Ethernet,  
Fortran, Frame, GUI, Hardware design, HTML, Image, IP, Java, Javascript, LAN,  
leadership, Linux, MVC, natural, Enterprise, Network, openGL, page, PLC  
programming, Programming, coding, Prototyping, Python 3, Python, Read, Proxy,  
Siemens, software design, Software Development, strategy, TCP/IP, Technical  
Support, type, UML, USB, Validation, Verilog, video, VB, Visual C++ 6, vm,  
VxWorks, web site, website, XML, XSLT

**EXPERIENCE**

**10/2016 Lead Engineer**

**HLRT Solutions** － Saint-Hyacinthe  
This is my self-employed company I use for consulting, contract work, R&D and  
career building.   
   
web  
automation  
green technology  
Harm Reduction technology  
Education technology

**05/2016**

－

－

－

－

**10/2016**

**11/2015**

－

－

－

－

**04/2016**

**07/2015**

－

－

－

－

**10/2015**

Embedded Systems, Electronics  
Firmware, Software, Webware, ShareWare  
Android, Linux  
Cloud, Artificial Intelligence, Machine Learning  
High Performance Computing, Financial Technologies

​Encryption, Artificial Vision, CryptoCurrencies.

Projects completed, available for consultancy or permanent positions but only if  
the challenge is great and fits me!  
I am a loyal and ethical worker.

**Senior Software Engineer**

**Marcotte Système ltée** － Longueuil

R&D, improve and debug web(back end and front end) and desktop  
application used in batching control automation product.  
Developed web reports, Back end processing, wrote a driver for a moisture  
probe, participate in brainstorming Port code Optimize code, Remove bad  
coding practices and replace with optimum natural coding solution: web  
site was laggy, used a lot of processing, had layout issues, and patches in  
the code that made the main thread work excessively overtime for nothing.  
convert html page style and layout for print HTML5 Canvas (flot-canvas)  
web dev task highlight: A) Take website built only for Edge browser  
maximized B) WebReports needed to be printed but were never designed  
to be.  
Company written javascript had serious bugs that I was key in resolving  
prepping layout of web pages for printing  
C/C++,Javascript, jQuery, XSLT, HTML5, CSS, CGI, XHR.

**Firmware Engineer**

**Bombardier** － Saint-Bruno

Part of the TCMS team, I was tasked with the maintaining of front end and  
back end parts of the web PTE, a web application used to monitor train  
systems.  
My functions included: modifying the code to match requirements,  
debugging back end and front end code mentioned below.  
Bring code up to standards, make it more readable to the user, simulate  
real environment on a vm using all web technologies.  
UML analysis and generation using Enterprise Architect.  
Back end S/W: C++, Python, XML  
Front end S/W: Javascript, jQuery, html, css, mvc, lighttpd  
Documentation: learn, follow, update and add Software requirements,  
design document and interface control documents.  
Use Enterprise Architect to document the software design.  
Compile Doxygen  
Achievements: I was the most productive developer in my team and  
cleared away many bugs that had been present for a long time.  
The code I developed was regarded as excellent, easily readable and  
usable.  
Competences: I demonstrated a lot of autonomy, ingenuity, and leadership.

**Firmware engineer Consultant**

**Tamaggo** － Montréal

Qualcomm Snapdragon 810 platform  
Wi-Fi (hostapd, ath6kl, 2G/5G, nl80211, cfg80211, wext)

**01/2014**

－

－

－

－

**01/2015**

**01/2013**

－

－

－

－

**01/2014**

**01/2011**

－

－

－

－

**01/2012**

**01/2009**

－

－

－

－

**01/2011**

HS/SS USB (type-C)  
Linux driver debugging  
Add support for Python on android arm64  
Test scripting writing  
Agile (JIRA)  
Validate Hardware design through schematic inspection.

**Software engineer**

**CMC Electronics** － Montréal

Prototyping Graphical Flight Planner: Visual C++ 6, MSVC 2010 (C++0x)  
C, C++, HTML, Javascript, jQuery, Awesomium  
Software Development, formalisation, testing and support: VxWorks,  
BARCO Display (PEAF, Honeywell),  
UART  
DO-178, DOORS, VectorCAST  
Ant, Java, Python, C, C++, openGL.

**Firmware engineer**

**ALSTOM** － Montréal

Embedded systems programming  
CodeWarrior 6.x, 7.x and 10.x (MCF54451 ColdFire Microprocessor)  
Tasking EDE (Infineon C161RI Microcontroller - Siemens)  
LED matrix display software development and maintenance  
LCD display software maintenance  
Embedded Linux (Moblin)  
Agile Software Development (Rational ClearQuest, JIRA project tracker)  
Software Validation and Systems Validation support  
Hardware debugging  
Use of about 40+ different software in line of work  
C, C++, Assembly, UML, XML, Python 3.

**Hardware engineer**

**Logix Systems** － Thousand Oaks, California

Design of Document Camera   
Hardware and development tools based on the HDR-60 board  
IP Core Design (Verilog):  
Image Frame Buffer  
Frame rate Up Converter  
HDTV format Converter (720p@60, 1080p@60)  
Third Party IP Core Integration:  
I2C, HDMI/DVI, Gbit Ethernet (PHY/LAN), DDR2, USB2.0  
Aptina CMOS sensor Integration:  
Interfaces: Parallel, MIPI, Hi-Spi  
Control and Status: I2C Lattice mico32 soft core processor in FPGA:  
Write TCP/IP stack  
Write UDP based protocol development framework  
Wishbone interface implementation on Custom mico32 IP cores  
RAW video data LAN transfer  
C, C++, Verilog, UML  
Implementation strategy, Read-write lock patterns.

**Software Engineer**

**WV communications** － Newbury Park, California

FTS (Flight Termination System) lead developer and senior designer  
Interface with Company Lead Designer to spec the FPS (FTS  
Programming System):

**01/2008**

**01/2006**

**05/2005**

**FORMATION**

**INTERESTS**

**2006**

**2000**

－

－

－

－

**01/2009**

－

－

－

－

**01/2007**

－

－

－

－

**09/2005**

GUI development (Qt Framework and libraries)  
Employee and Customer Support  
AVR microcontroller based Device:  
Program AVR microcontroller  
Debug Hardware Prototype design (PCB, Assembly) C, C++, Assembly,  
VB .NET

**Integration Specialist**  
**CAE - Montréal, QC**

Employed in the department that updates existing flight simulator  
Integration of Software Updates on Linux platforms  
Technical Support for Customers and engineers  
Fortran avionics debugging

**Systems Analyst**

**Marcotte Systems** － boucherville

Integration/management of turnkey Automated Batching System.  
C++ Desktop app programming.  
PLC programming (Omron, Allen-Bradley)  
C, C++.  
control systems and automation

**Embedded Software Engineer (Student Internship)**

**Agro-Contact** － Princeville

Design Automation Software for Batching and Feeding System.  
GUI and Machine/Machine Interface Development  
Embedded C programming of Rabbit based Control System  
Network Layer development.  
Rabbit processor, Qlarity Hardware (HMI terminals)  
Dynamic C, Qlarity Language (similar to VB)  
Abstract Factory, Prototype design patterns.

**Bachelor of Electrical Engineering**

**École de Technologie Supérieure** － Montréal QC  
Electriconics Engineering - Information Technology

**DEC Technologue**

**Collège de l'Outaouais** － Gatineau Canada  
Electrical Engineering - Telecommunications

Writing  
Research  
Rollerblade  
God  
Movies  
Music and audio