

Hervé Dang

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PERSONAL SUMMARY

Engineer's training complete by a master's degree in computer sciences

Curious, determined, analytical ability, versatility and ability to adapt

COMPUTER SKILLS

Operating system: GNU/Linux, Microsoft Windows

System Administration/ Devops: BASH, Apache, Postfix, Dovecot, Bind, OpenVPN, Iptables, Dockers, Kubernetes, Cloud(AWS, Azure...)

Programming language: C/C++, JAVA, Python, Scheme, .Net

System programming: IPC, concurrent computing (Multi-threading, Multi-processing), embedded programming, drivers

Modeling method: UML 2.x, SysML, Design Patterns, Model driven engineering

IA: Prolog , Clips, Genetic Algorithm, Artificial neural network

DB: Oracle PL/SQL, XML-SQL, MariaDB

XML: DOM, SAX, XPATH, XQUERY, FO...

WEB: PHP, HTML, JAVASCRIPT, CSS

Electronics/Embedded system: VHDL, FPGA, SystemC, Android, Real Time, μ c, Qt

Avionics: A429, AFDX, CANBUS, DO178/DO254, ADS2, FLIGHTSIM

Others: Security, Telecoms, Aspect oriented Programming

EDUCATION

Master's degree in computer sciences 2012
Ecole Polytechnique de Montréal
Main courses: Embedded system, Networking, Programmation

Engineer's diploma in computer sciences 2004-2010
Ecole Internationale des Sciences et du traitement de l'information in France (www.eisti.fr)
Main courses: Software design, System information engineering, Project Management

WORK EXPERIENCE

- DRIVERS Software Developer** 2023-2024
Opal-rt
C/C++ Device Driver Developer for PC/FPGA-based real-time simulators running on Windows and Linux platforms.
C/C++, Real Time, Linux
- System Administrator** 2009-2024
Self employed
-Management of a computer park with about ten computer within multi-sytem environement
-Setup of some server aplication(mail, DNS, VPN, Web...)
-Monitoring of web service for reliability
System administration, Apache, Postfix, Bind, OpenVpn, Linux, Ansible
- Devops** 2020-2022
Omnirobotic
Create and manage company devops architecture:
-CI/CD: based on drone and docker
-Development on-demand system for our developer (Aws/Terraform)
Terraform, Docker, Drone, python, Linux
- Devops** 2019-2020
Novaquark
Contribution to create and manage cloud architecture for client/server games:
-Write and mange deployment platform scripts (Ansible)
-Collaboration in setting up an on-demand environment system base on cloud (Aws/Terraform)
Ansible, games, C++, go, python, Linux
- Feasibility study for using my Bike project as Business** 2018-2021
Business development
-Business plan writing
-Funding search
-Contact with company for developing the product (Electronic design, industrial design)
-Crowd-funding campaign writing
-Firmware development
Product development, Business plan, Entrepreneurship
- Technical Associate, Vehicule Simulation** 2016-2017
Consultant at CAE Montréal
-Aircraft simulator conception (C series/Embraer 145)
-Snag resolving for Flight Surveillance Systems (Air Traffic Control system, Traffic Alert and Collision Avoidance System, Terrain Awareness, Warning System, Weather Radar System and Graphical Weather System)
-Development of different kind of simulator (Full Flight System, Flight Training Device, Integrated Procedures Trainer)
C++, Real time, Avionics(ATC, TCAS, TAWS, WXR, GWX)
- Software engineer** 2015-2016
CEL Aerospace Longueuil
Aircraft Engine test cell development:
-Add engine to the solution of the company
-Execution and writing of test plan
-Driver improvement
VB.Net, QNX, C
- Programmer C++** 2014
Consultant at CMC Electronics/Esterline Montréal
Synthetic vision system development:
-Writing of System requirement
-Writing of unit test (LLT and HLT)
PFD/SVS, DO178B B&C level

Software developer	2012-2014
Thales Canada Avionics Division (http://www.thalesgroup.com/canada/) Montréal	
Flight On-board computers development :	
-Design document management (writing and review)	
-Conception and Development of software part from specification	
-Writing and execution of unit test (LLT and HLT)	
Scade, DO178B A&D level, TCL	
Embedded system developer (4 month internship)	2011
Laboratoire d'Astrophysique de Bordeaux (www.obs.u-bordeaux1.fr)	
Creation of the software part for high speed analog-to-digital converter project	
Embedded system, ARM9, Cross-compilation	
Student-researcher in computer science (4 month internship)	2010
Ecole Polytechnique de Montréal	
Study of different architecture with RESP-SIM	
Embedded system simulation for aerospace industry, Cross-compilation, SystemC	
Web application developer (2 month internship)	2009
Société Le Nickel (www.sln.nc) in New Caledonia	
Module design for GLPI	
Web development, licence fixed and rotary wing AJAX/HTML/PHP, Module design	
Web developer (2 month internship)	2008
AIRCALIN (www.aircalin.com) in New Caledonia	
Development of a tool allowing personal management	
Development Web, HTML/PHP	

PROJECT

Software development for a library

School project implemented in order to apply knowledge study in lessons of JAVA, modeling and data base.

JAVA, XML, UML

Workshop design program

School project implemented in order to apply knowledge study in lessons of design pattern.

JAVA, XML, Design pattern

Realization of a dealing room

School project implemented in order to apply knowledge study in lessons of network programming, database and JAVA

JAVA, SQL, Network programming

Design of MP3 player

Design of MP3 player on Virtex 2 PRO hardware. This project uses MicroBlaze microprocessor Virtex 2 PRO, EDK, MicroBlaze (Language C), real time

Design of a pilot assistant for aircraft making

Project aiming the research phase for a pre-prototype for an embedded system who avoids crash of aircraft model making.

Spartan 6, Embedded Linux, Aeronautics

Development of credit card number transfer system using QR CODE

Two part project: server part implemented to generate the credit card number and encrypt it, client decode and decrypt the QR CODE

Android, PHP, SQL

Design of embedded processor

Project aiming the study if an ASIP having for target an algorithm of high dynamic range image processing (HDR)

ASIP, Xtensa Tensilica

Callback system design with OVH provider

Two part project: server part implemented to have the possibility to share a line for instance, client part for using the advantage of Android system
Android, PHP, SQL

Realization of Von Neumann machine

Realization of necessary module by the architecture: memory module who save data and instruction; arithmetic logic unit module carry out data processing and control unit manage operation: FETCH instruction , DECODE it and EXECUTE it.
VHDL

Design of a bicycle lighting system

Ligh system front and rear for bike with turn and brake indicator
Arduino, Led strip, Toughness (Hostile environment: IP67)

LANGUAGES

French : mother tongue

English: fluent, 840 TOEIC (2009)

Japanese : conversational

Spanish : basic Knowledge

HOBBIES

Horse ridding

Aeronautics: Pilot Licence plane and helicopter

Model Aircraft making

Travelling

Skydiving

Scuba diving