Martin Dubois, P. Eng.

Personal Information

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University Training

Laval University   January 1995 – December 1998

Certificate in Education for postsecondary teaching (15 credits completed)

Laval University   Completed December 1993

Bachelor's Degree in Computer Engineering

General Information

- Member of the OIQ (Quebec corporation of professional engineers)
- Sports: hiking, cycling, snowshoeing, cross-country skiing
- Hobbies: travel, wood working, reading, cinema, writing, computer science, motorcycling and music.

Conference

Utilisation de GPU pour l'inspection de trafic réseau, 2018, novembre 3 at Hackfest (https://hackfest.ca/)

Work Experience

KMS   Since March 2002

http://www.kms-quebec.com   Computer Engineering Consultant

- Completed various assignments involving the development of device drivers and embedded software.

Android
GIT
Language C/C++
OpenCL
PCI/PCIe
USB
WDF et WDM

Cégep de La Pocatière   Since January 2015

http://www.cegeplapocatiere.qc.ca   Computer Science Teacher

- Taught courses on computer tool basics and programming to students enrolled in the regular and technical program.

Cégep Beauce-Appalaches   Since August 2010

http://www.cegepba.qc.ca   Computer Science Teacher

- Taught courses on computer tool basics and programming to students enrolled in the regular and technical program.

LeddarTech   January 2008 – July 2010

http://www.leddartech.com   Senior Software Engineer

- Designed, implemented and tested control software for LEDDAR devices used in various applications.

AVR32
CAN
USB

- Actively participated in the development of optic components for systems.
- Participated in the implementation and management of the LAN.
- Co-inventor of the patents :
  - US 20120307065 et EP 2517189 - ACTIVE 3D MONITORING SYSTEM FOR TRAFFIC DETECTION
  - US 20120218107 - ENTITY DETECTION SYSTEM AND METHOD FOR MONITORING AN AREA

Pleora Technologies   March 2003 – December 2007

http://www.pleora.com   Senior Software Engineer

- Designed, implemented, optimized and tested Windows and Linux device drivers used in high bit-rate transmission of image and video traffic over Ethernet links.

Ethernet
GigE Vision
Linux
PCI and PCIe
TCP-IP
WDM et WDF

- Designed and implemented various software applications mainly used for controlling electronic devices such as industrial cameras or video transmission equipment.
- Designed and implemented very low level on-board software.
- Co-inventor of the patent :
  - US 7694312 - Methods and apparatus for enabling bus connectivity over a data network

Laval University   September 2002 – May 2005

Department of Computer Science and Software Engineering   Lecturer
http://www.ift.ulval.ca

- Prepared and taught a course on system programming (*Programmation système* − IFT-17584).
- Created, prepared and taught a course on real-time lab, automation and robotics (*Laboratoire temps réel, automatisation et robotique* − IFT-21460).
- Received the Star Teacher 2003-2004 award (granted by the Faculty of Science and Engineering).

Linux
QNX
Windows CE

DiCOS Technologies   January 2001 – February 2002

Software Manager

- Implemented and improved software development procedures and standards.
- Designed and implemented on-board software for electronic instruments and modules used to control laser and optical filter frequency.
- Designed and implemented software used to control, characterize calibrate and test electronic modules.
- Developed an embedded Ethernet communication software used for instrument control.
- Participated in the implementation and management of the LAN.

CCS
DSP/BIOS
TMS320C55
WDM

Cybectec   September 2000 – January 2001

http://www.cybectec.com   Software Developer

- Developed an embedded software for remote control of electrical substation and power plants.
- Designed and implemented components for remote monitoring of the system.
- Developed test and simulation software applications.
- Participated in the implementation of software development procedures and standards.

COM / DCOM
Windows CE

Labcal Technologies   January 2000 – September 2000

http://www.labcal.com   Software Developer

- Developed peripheral drivers for smart card systems.

WDM

Collège de la région de l'Amiante   August 1999 – December 1999

http://www.cegepth.qc.ca   Computer Science Teacher

- Taught courses on operating systems, telecommunications and networks, and computer tool basics (*Systèmes d'exploitation, Télécommunications et réseaux, Initiation aux outils informatiques*) to students enrolled in the regular program.

Cobol
VMS

HexaVision Technologies   October 1996 – May 1999

Junior Software Engineer

- Designed and implemented device drivers for image acquisition, image processing and high speed communication PCI boards.
- Designed and implemented testing and characterization programs for boards and electronic components developed.

PCI
QNX

Le groupe Berclain – BAAN   March 1996 – September 1996

Junior Software Engineer

- Maintained the MOOPI industrial production planning software.

UNIX
ERP / MRP

InnovMetric Logiciels   July 1994 – February 1996

http://www.innovmetric.com   Junior R&D Engineer

- Designed, implemented and maintained 3D geometrical modelling applications for science and film animation.
- Developed several 3D file format translators.
- Implemented and managed the LAN.

Irix
OpenGL

Laval University   April 1994 – June 1994

Octopus Project   Senior Research Fellow

- Participated in the implementation of an object-oriented Prolog compiler, used mainly for the lexical analyser, syntactic analyser and system call generation layer.

PowerPC
Prolog

Laval University   May 1993 – August 1993

Vision and digital systems laboratory   Research Assistant
http://vision.gel.ulaval.ca

- Designed and implemented an interface between the electronic control components of a PUMA 500 industrial robot and the VME bus.
- Designed and implemented a distributed control software.

Irix
SunOS
TMS320C40
VME

References

Available on request.