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## Martin Dubois, P. Eng.

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### ***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 in December 1993**

Bachelor's Degree in Computer Engineering

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### ***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.
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### ***Patents***

- ACTIVE 3D MONITORING SYSTEM FOR TRAFFIC DETECTION  
us 20120307065 - LeddarTech
  - ENTITY DETECTION SYSTEM AND METHOD FOR MONITORING AN  
AREA - LeddarTech  
us 20120218107
  - METHOD AND APPARATUS FOR ENABLING BUS CONNECTIVITY  
OVER A DATA NETWORK  
us 7694312 B2 - Pleora Technologies
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### ***References***

Available on request.

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## Conference

- Capture de trafic réseau – Haute vitesse et filtres avancés  
2019, november 1 at Hackfest  
(<https://hackfest.ca/>, <https://www.youtube.com/watch?v=djhU3Jebr7M&t=39s>)
- Utilisation de GPU pour l'inspection de trafic réseau  
2018, novembre 3 at Hackfest  
(<https://hackfest.ca/>, <https://www.youtube.com/watch?v=ugjFISBz13E&t=78s>)

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## 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.
- Actively participated in the development of optic components for systems.
- Participated in the implementation and management of the LAN.

AVR32  
CAN  
USB

**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.
- 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.

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

**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 lasers 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 tools 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&amp;D Engineer

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

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 analyzer, syntactic analyzer 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