

Tristan Lelong - senior embedded software engineer

✉ tristan@lelong.xyz

🏠 115 Shelmartin avenue
Marino, Dublin 3 - Ireland

☎ +353 089 702 8688

🌐 <http://www.lelong.xyz>

👤 March 11th, 1983

🇫🇷 French

TECHNICAL SKILLS

Programing language:

- expert in C development
- expert in shell scripting
- good knowledge of assembly, C++, python, HTML/CSS, SQL

Embedded software & real time:

- designing and customizing embedded GNU/Linux systems
- Yocto/OpenEmbedded, Buildroot, Android, LTIB, PetaLinux, PTXdist, manual
- busybox, sysvinit, systemd
- u-boot, barebox
- Linux driver development
- Xenomai, Preempt-RT

SoC:

- Freescale: i.MX & PPC QORIQ
- TI: sitara
- Xilinx: Zynq
- Intel: ATOM e38xx

Tools:

- GNU Toolchains, Makefile, autotools, GDB, valgrind, strace, ftrace, perf
- git, mercurial, svn
- vim, latex, libreoffice

GNU/Linux systems:

- Debian
- Ubuntu
- Package management (deb, rpm, ipk)

Networking:

- ARP, IPv4, IPv6, ICMP, UDP, TCP
- iptables, netfilter

Image processing:

- Implementing algorithms on embedded systems
- OpenCV

Graphical framework:

- QT
 - EFL
-

OTHER SKILLS

Linux Training

Designed and delivered 4 days embedded Linux trainings with slides and labs.

Presentations

Designed and presented technical sessions at several conferences: ELC2013, ELC2014, ELC2015, FTF2015.

Team leader

Monitor and help junior engineers as part of a team.

Pre-sales

Communicate with potential customer to understand their requirements, analyze, estimate the tasks to realize.

Language

- **French:** Mother tongue.
 - **English:** Fluent.
-

PERSONAL PROJECTS

libroxml

C XML parsing library designed for embedded systems.

cortex

Coredump to text crash report conversion tool.

WORKING EXPERIENCE

- **Embedded software engineer at Adeneo embedded, Seattle, WA - USA** **2012 - 2016**
- Board bring up and BSP customization for multiple automotive platforms.
Yocto, Linux kernel, u-boot, WiFi, bluetooth, systemd, line disciplines
- Optimization of NAND accesses for an automotive platform.
Linux kernel, MTD subsystem, DMA
- BSP customization for multi-stream video capture/display on an automotive platform.
LTIB, V4L2, gstreamer
- Board bring up and system design of a medical video capture device.
Buildroot, Linux kernel, u-boot, OpenGL, QT
- BSP migration to Yocto and driver development for a plane monitoring system.
Linux kernel, Dual port RAM, Yocto, PTXdist
- BSP customization for boot time reduction.
Buildroot, openGL, u-boot falcon, Linux kernel
- Port of several older Linux BSP to the newer LTS version.
Linux kernel, Buildroot, Yocto
- Design of update systems for Linux / Android platforms.
u-boot, software architecture, reliability
- Debugging for different platforms before production stage.
Linux kernel, bus analyzers, JTAG, GDB, ftrace, strace, debugging
- Android BSP customer support.
Android Jelly Bean
- **Research and development engineer at Open Wide, Paris - France** **2006 - 2012**
- Design of an in-flight entertainment system.
EFL, webkit, dbus, sqlite, XML
- Design of a Linux system running on a dual core router along with Vxworks
Open Embedded, Linux kernel
- Design of a camera quality monitoring server: 10000+ cameras inspected daily.
OpenCV, QT, postgresSQL, NetSNMP
- Design of a smart DVR using motion detection and PTZ camera.
OpenCV, image processing, mysql
- Design of a system monitor for a multimedia platform.
LTIB, C
- Port of a real-time test bench software for military planes.
Xenomai, Linux kernel, C
- Port of a Visual C++ ticketing application to Linux Buildroot system.
Buildroot, Wine

EDUCATION

- Master of engineering degree**, major in industrial computing **2003 - 2006**
- Master of science degree**, major in image and signal processing **2005 - 2006**
- University Institute of Technology**, major in electronics and industrial computing **2001 - 2003**

HOBBIES

- Sports:** trekking, mountainering, skiing, swimming, viet vo dao
- Travel:** north America, eastern Europe, Turkey, Cambodia, Indonesia...