

# Tristan Lelong - senior software engineer

---

✉ tristan@lelong.xyz  
🏠 81 Alte Winterthurerstrasse  
8304 Wallisellen - Switzerland

🌐 <http://www.lelong.xyz>  
🕒 March 11th, 1983  
🇫🇷 French

---

## TECHNICAL SKILLS

---

### Programming language:

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

### SRE:

- Large system design
- Incident response
- System reliability
- Monitoring, Debugging, Optimization
- Security, Privacy

### 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

### 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)

### SoC:

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

### Networking:

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

### Image processing:

- Implementing algorithms on embedded systems
- OpenCV

---

## 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, SRECON 2016.

### Technical Team leader

Monitor and help junior engineers as part of a team, drive project technical direction.

### Pre-sales

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

### Language

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

---

## PERSONAL PROJECTS

---

### libroxml

C XML parsing library designed for embedded systems.

### cortex

Coredump to text crash report conversion tool.

---

## WORKING EXPERIENCE

---

• **Senior Site Reliability Engineer at Google, Zurich - Switzerland** 2016 - Current

Onboard, Maintain, Improve and Optimize large distributed system.

Linux, Monitoring, Automation, Incident response

Improve the security of our production environment.

Cryptography, SSH, Low dependency access control, Multi-party authorizations, Auditing

Technical lead .

Design document, Code reviews, Technical trainings and presentations

• **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...