

Tristan Lelong - senior software engineer

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🌐 <https://www.lelong.xyz>

🕒 March 11th, 1983

🇫🇷 French

TECHNICAL SKILLS

Programming language:

- expert in C development
- high proficiency in C++, Go, Shell scripting
- good knowledge of assembly, python, HTML/CSS, SQL

SRE:

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

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
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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 & Various Google internal security related conferences.

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.
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OPEN SOURCE PROJECTS

HIBA

Host Identity Base Authorization for SSH.

libroxml

C XML parsing library designed for embedded systems.

cortex

Coredump to text crash report conversion tool.

WORKING EXPERIENCE

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

Drive large horizontal, high impact, technical changes in Google's infrastructure.
Leadership, organizational expertise, initiative.
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...