

Leonardo Sandoval

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EDUCATION ♦ Instituto Nacional de Astrofísica, Óptica y Electrónica

MS in Computer Science. Thesis defended in January 2005.

♦ University of Guadalajara

Diploma in Computer Science, August 1998.

♦ Scholarships

- Mexican-French Scientific Agreement (ANUIES-ECOS). January – December 2003.
- Mexican Science Sponsor (CONACYT). January 2001 – December 2002.

WORK ♦ Linaro Limited

EXPERIENCE May 20 – Present

· Software Engineer - Qualcomm Landing Team (Jan 22 – Present)

Lead the Qualcomm LT CI Pipeline Migration from [Jenkins](#) to [Gitlab](#), with the ultimate goal of running the full CI under [CodeLinaro](#).

· Software Engineer - Developer Services Team (May 20 – Jan 22)

Lead the CI migration of the [TF-A](#) project where now the community relies on the [TF CI](#). Lead the CI migration (Arm's internal to public) of the [Mbed TLS](#) project. TF CI work can be found at the [patch review](#) page.

♦ Intel Corporation

Feb 15 – May 20

· Cloud Software Engineer (Oct 18 – May 20)

Member of the [Software Stacks](#) team, providing specialized and optimized [Clear Linux OS](#) Reference Stacks. Leo is one of the Integration Architects who has lead two stacks: the [Data Analytic](#) and [Media](#) Reference Stacks, from design to release.

· Performance Software Engineer (Dec 2017 – Oct 2018)

Member of the Clear Linux [Performance Team](#). Activities include: Performance Package Monitoring and Routine Optimization. For the latter, Leo's contributions focused on [GNU C library](#), adopting AVX2 technology for *strcmp* and *strcpy* string routines. See [patchwork](#) for completed work.

· Embedded Software Engineer (February 2015 – December 2017)

Member of the Core [Yocto Project](#) Team, providing support for several sub-projects: [bitbake](#), [OpenEmbedded-Core](#) and [Poky](#). Initial maintainer of [Patchtest](#), a framework and test suite for [Open-embedded-Core Patches](#).

♦ Freescale Semiconductor

Jul 2012 – Feb 2015

· Embedded Software Engineer - Professional Services Consultant (Apr 14 – Feb 15)

Board Support Package (BSP) development and support for [i.MX](#) Multimedia Processors. Direct support to US customers for the entire Software Stack: from boot loader up to the user-space.

- **Embedded Software Engineer - Field Application Engineer** (Jul 12 – Apr 14)
Customer support for customers located in the USA Central Region and México using **i.MX** Multimedia Processors, with main focus on issues raised from **meta-fsl-arm** BSP meta-layer. Key **member** of the Linux build system migration, supporting community users to transition from *ltib* to the Yocto Project.

◇ **Texas Instruments - Dextra Technologies**

August 2006 – June 2011

- **Embedded Software Engineer** (August 2007 – June 2011).
Creating and maintenance of GStreamer plugins for the **OMAP** family processors. Plugins based on TI **OpenMAX** IL multimedia interface. Maintainer of the camera and video encoder plugins.
- **Embedded Software Engineer** (August 2006 – August 2007)
Software developer for the **OpenMAX** IL Camera component for **OMAP2** family processors.

ACADEMIC EXPERIENCE ◇ **Tecnológico de Monterrey campus Monterrey**

- **Software Embedded** (August 2014 – November 2014).
A *Embedded Linux Software* course imparted on the Department of Master of Electronic. Topics covered: cross-toolchain, bootloader, kernel, filesystems and multimedia through HW accelerators using **i.MX** processors.

RESEARCH EXPERIENCE ◇ **Tecnológico de Monterrey campus Monterrey**

- **Web programmer** (Part time, August 2009 – January 2011).
Design and implementation of an Second factor authentication system using browser User Agent. A functional prototype built and delivered to customer.
- **Web programmer** (Full time, August 2007 – July 2008).
Design and implementation of a classification method for detecting intruders using keystrokes typing rhythm. The designed algorithm documented and delivered successfully to customer (Google).

◇ **Instituto Nacional de Astrofísica, Óptica y Electrónica**

- **Master thesis in Computer Astrophysics** (January 2001 – December 2004).
Comparison between Decay Times of Satellite Galaxies using N -body numerical simulations and a two-body motion equation with dynamical friction. Several galaxy density profiles were compared. Thesis partially done in Marseille, France
Advisors: Ivanio Puerari (INAOE, México) and Lia Athanassoula (Observatoire de Marseille, France).
- **Scientific Programmer** (August – December 2000). Comparison between two classification methods (k -nn and neural networks) using stellar spectra.
Advisor: Olac Fuentes (INAOE, México).

TALKS ◇ Simulation of Decay Times of Satellite Galaxies using Semi-Analytical methods.
Proceedings of The National Convention of Astronomy 2003.
Instituto de Astronomía, UNAM.
Authors: Leonardo Sandoval, Lia Athanassoula and Jorge Villa

SKILLS ◇ Programming languages: Python, shell (bash), C, X86 assembler
◇ Version controllers: Git
◇ Linux Building Systems: LTIB, Yocto Project

LANGUAGES ◇ Native Spanish

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- ◇ Fluent spoken/written English
- ◇ Fair **German**. ZDaF (Zertifikat Deutsch als Fremdsprache) obtained in Goethe-Institut, Guadalajara, Jalisco, Mexico (1996-1998)

HOBBIES ◇ Mountain climbing, travelling
 ◇ Tech book reading: x86 architecture, compilers, vectorization, binary analytics
 ◇ Meditation: Mindfulness, Yoga, Kriya Yoga

REFERENCE Available on request.