

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 2020 – August 2023

· Senior Software Engineer - CodeLinaro (Apr 23 – Aug 23)

Lead the GIT repository migration from [Linaro](#) into [CodeLinaro Git](#), providing tools and support to multiple internal teams. Together with the repository migration, internal teams started to migrate their CI/CD from [into CodeLinaro CI](#) where I provided support for all issues encountered.

· Senior Software Engineer - Qualcomm Landing (Jan 22 – April 23)

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

· Senior Software Engineer - Trusted Firmware (May 20 – Jan 22)

Lead the CI migration of the [TF-A](#) project from an ARM internal Jenkins instance into a public one at [TF CI](#). Lead the CI migration from ARM internal Jenkins instance into a public one at [Mbed TLS](#). All work on the above areas is found at [patch review page](#).

♦ Intel Corporation

February 2015 – May 2020

· Integration Architect - Intel Stacks (Oct 18 – May 20)

Member of the [Software Stacks](#) team, providing specialized and optimized [Clear Linux OS](#) Reference Stacks. My role was as an integration architect, providing integration solutions on multiple stacks, leading: [Data Analytic](#) and [Media](#) Reference Stacks, from design to release.

· Performance Software Engineer - ClearLinux (Dec 2017 – Oct 2018)

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

· Embedded Software Engineer - Yocto Project (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 [OpenEmbedded Core Patches](#).

◇ **Freescale Semiconductor**

July 2012 – February 2015

- **Embedded Software Engineer - Professional Services** (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 bootloader up to the user-space, full Linux stack.
- **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 - GStreamer** (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 - OpenMAX** (August 2006 – August 2007)
Software developer for the OpenMAX IL Camera component for OMAP2 family processors.

ACADEMIC
EXPERIENCE

◇ **Tecnológico de Monterrey campus Monterrey**

- **Embedded Linux** (August 2014 – November 2014).
A *Embedded Linux* 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 - Computer Science Department** (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 - Computer Science Department** (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 - Machine Learning** (August – December 2000).
Comparison between two classification methods (k -nn and neural networks) using stellar spectra.
Advisor: Olac Fuentes (INAOE, México).

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- 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
◇ 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.