

# Leonardo Sandoval

Ciudad Querétaro 211, Colonia México  
Zapopan, Jalisco, México  
home (+52) 33 38 13 05 63  
mobil (+52) 33 12 67 90 39  
leo.san.gon@gmail.com

## 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 ♦ Intel

### EXPERIENCE

#### · Cloud Software Engineer (October 2018 – present)

Member of the **Software Stacks** team, providing specialized and optimized Clear Linux reference stacks. Leo is one of the Integration Architects and has lead the Data Analytic Reference Stack [DARS](#) and the Media Analytic Reference Stack and [MERS](#) integration tasks.

#### · PnP Software Engineer (December 2017 – October 2018)

Member of the **Power and Performance** team which is part of the Clear Linux team. Leo's contributions focused on *GNU C library*, adopting AVX2 technology for *strcmp* and *strcpy* string routines. Leo's contribution to the latter project can be found at [GNU C Library patchwork](#).

#### · Embedded Software Engineer (February 2015 – December 2017)

Member of the core [Yocto Project](#) Team providing support on [openembedded-core](#) and [bitbake](#) projects. Leo's contribution to the openembedded-core project can be found at [OE-Core patchwork](#). Main maintainer of [patchtest](#), framework and test suite for openembedded-core community patches.

## ♦ Freescale

July 2012 – February 2015

#### · Embedded Software Engineer - Professional Services Consultant (April 2014 – February 2015)

Board Support Package (BSP) development and support for i.MX Multimedia Processors. Direct support to US customers for all Software Stack, from boot loader to user space applications.

#### · Embedded Software Engineer - Field Application Engineer (July 2012 – April 2014)

Customer support for clients located in the USA Central Region and México using i.MX Multimedia Processors, with main focus on issues raised from software coming from the [meta-fsl-arm](#) layer, the openembedded BSP layer for the i.MX. During this period, the company moved from a in-house Linux Distribution builder ([ltib](#)) to the Yocto Project where Leonardo played a fundamental role in the [community](#).

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

HOBBIES

- ◇ Mountain climbing, travelling

*Leonardo Sandoval*

- ◇ Tech book reading: x86 architecture, compilers, vectorization, binary analytics
- ◇ Meditation: Mindfulness, Yoga, Kriya Yoga

REFERENCE     Available on request.