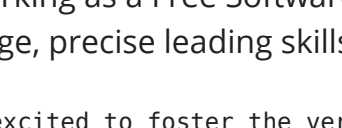
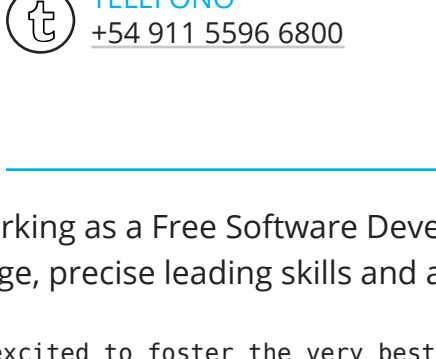
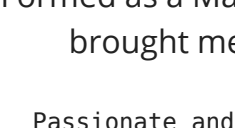
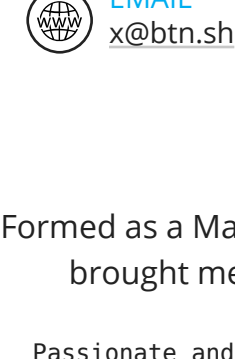


NIV SARDI-ALTIVANIK

FLOSS ARQUITECT



Formed as a Mathematician I've been working as a Free Software Developer for the last 15 years, following a path that brought me deep technical knowledge, precise leading skills and a proven experience in the world of politics.

Passionate and details-conscious, I am excited to foster the very best of technology and human capacity into tools we need to steer the world into a more liveable place.

EDUCATION

UNIVERSITÉ DENIS DIDEROT PARIS VII

2004-2007 *owning the diplomatariat*

Maths and Computer Science Masters
Université Denis Diderot: Maitrise de Mathématiques et d'informatique

- Project : MiniOCaML interpreter (CaML)
- Research: Big Social Networks Topology — using Graph Theory to analyze online communities (Perl & C)

Maths and Computer Science Bachelor
Université Denis Diderot: Licence de Mathématiques et d'informatique

- Project: Suffix Arrays, Algorithms, Analysis and Implementation (C)

LATEST WORK EXPERIENCE

PRESIDENCIA DE LA NACION: TECHNOLOGY ARCHITECT

2019- *Building the tools to pass the Messages* In 2019 I retook my consulting activity, working for a large group of different clients.

Head of Software Development: Evo Morales Campaign
Lead the development of the tools used to gather social media data during the Evo Morales campaign. I articulated with different political actors and was able to negotiate political tensions to create a framework of colaboration.

DataViz Expert: Proyecto PODER
Engaged in several shoot and run consultancies to unblock dataviz projects in the NGO

Technical Advising: Frente Patria Grande
Participated as an advisor to the creation of the 'Good Government' proposal presented to president Alberto Fernandez. I worked mostly on the popular networks tainted proposals.

WORK EXPERIENCE

FREE SOFTWARE I+D CONSULTANT

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DISTRIBUTED R&D FLOSS ENGINEER

2018-2017 *getting data to places you wouldn't believe*

Endless Computers' mission is to bring top-shelf technology to the people living in the borders of our societies, the rich of the poor, that work hard to make a few hundred dollars but live in favelas and slums around the world, with poor connectivity, electricity or even basic sewage systems.

In the OS team I researched the use of distributed technologies to better counter the 'poor data plan' problem.

Data Distribution

- Articulate with the NDN research community
- Coordinate with the Product team to design cache-friendly application architectures
- Research and proof-of-concepts on the large scale use of NDN in the industry

General OS work

- Integration of the Steam Platform
- Integration of KALITE

FREE SOFTWARE I+D CONSULTANT

2015-2013 *Technical Excellency with Open Technologies*

In the last years I have been working like a Freelance consultant solving different kinds of challenges, political and technical ones, for my diverse clients portfolio in the public and private sector.

Technical Advising and Project Management: Secretaria de Energía de la Nación

- Programa Hogar

Technical Advising and Development: Ente Nacional Regulador de la Electricidad

- Crisis Data Analysis

Distributed Systems on Blockchain and the DHT: BlockTech

- Software Architecture
- Mixed DHT on UDP/Websockets
- Multi Platforms Apps

Technical Advising: Editorial de la Universidad de Buenos Aires

- Digital Television
- Air TV Proof-Of-Concept

Technical Advising and Development: Ministerio de Educación de la Nación

- Educational Streaming

Technical Advising: Comisión Nacional de Comunicaciones

- Mesh Networks
- Open Source Radio

Technical Advising and Design: Universidad de Quilmes

- Camera Automation System
- Closed-Circuit Television
- Bootable Pendrive for Student
- University's Render Farm
- University's DAM

Video Research: Neuropolis

- Frame Drop

Technical Advising and Processes: SAGEM

- Open Source for big corporation

Technical Advising and Performance: SmartJog

- Optimization of connection handling for Radio and TV streaming Software

TECNICO-POLITICAL ADVISER: COMISIÓN DE TECNOLOGÍA DEL INSTITUTO NACIONAL DE ASOCIATIVISMO Y ECONOMÍA SOCIAL

2012-2013 *Open Technology for a socially conscious State*

The INAES (National Institute for Associations and Social Economy) is a division of the Ministry of Social Development whos main objective is the promotion, control and fiscalisation of the Cooperative and Mutual movements.

I directed a Work Group focused on the development of Technological Cooperatives seen as Startups

Incubation of a «Cooperative Startup»

- RoadMap Design and Project Architecture
- Financial Management and Inversion Cycles

Design of Argentina's first aboriginal TV station

- 100% Free Software, all code on [github](#).
- Political coordination of 3 Cooperatives for the development of the technical parts of the TV Station.
- Project Management of the TV Station's innovative Playlist System.

R&D FLOSS CONSULTANT:

2011-2012 *FLOSS transformations for Governments and National Corps*

I joined the <http://covetel.com.ve> cooperative to give a hand on their various Free Software Projects:

Processes Optimization:
Designed and Installed a new `git` Workflow based on `gitolite`.

Debian Packaging automation:
Developed a set of tools on top of `debhelper` to ease out the creation of configuration packages (that Covetel Shipped to it's customers).

Adapt **Canaima** (The National GNU/Linux Distro) to the need of CanTV (National Telco).
Refresh the Canaima Building tools (30+ Patches merged).

Audio/Video Streaming.
Designed and Deployed a Streaming Solution based on `VLC`, `x264` and `FFMPEG` to get a regional TV channel from one head to another across a small wire.

R&D FLOSS CONSULTANT:

2011-2012 *Performance Ninja & BT master*

As a consultant for CROLL I worked with the `vo.do` team essentially on:

Filesystem Performance

- Install and tune `xfs` filesystem for optimal performance for tracker workloads.

BitTorrent Tracker

- Replace running solution to a much less resource-hungry one with 0 downtime.
- Patch `openTracker` for in-house need.
- Design, Implement and Deploy daemon to ease-in tracker workflow (Python).

Processes

- Audit and normalize development process (Git).

HACKING EDUCATOR:

2010-2011 *Hacking for the (socially excluded) masses*

The Social Inclusion Office of the Avellaneda city gave me a white card opportunity to run a little experiment in Isla Maciel (socially excluded neighborhood). The goal of the bi-weekly sessions was to get kids to understand and ingest elements of the hacker culture.

The mind process we explored gave them new tools for their daily lives and a better understanding of many technologies they are immersed in.

During those meetings, I use FLOSS for:

Technological Appropriation Process

- Getting participants to understand that technology is palatable.
- de-mystification of tools they use on daily basis.
- Search-Hack-Remix Ideology.

Computer Security Introduction and Self-Awareness

- Explore different security-breaching methods, their consequences and possible risk-minimization policies.
- Basic Cryptography.

R&D SOFTWARE ENGINEER:

2011 *Embeded Linux*

As a consultant for CROLL I was integrated inside the 'LATAM' team, of Sagem. This section was selling consulting to Telefonica in Chile, Peru, Venezuela and Brazil.

There I focused on integrating Open Source Tecnics and Methods into the Corporate Workflow.

R&D SOFTWARE ENGINEER:

2009-2011 *Audio, Video, Streaming & Broadcast*

I was integrated inside the 'Core' team, of the SmartJog TDF division to work essentially on:

«In House» **FFMPEG** Maintainer.

- Patch for Broadcasters specific features.
- Reverse Engineering of media Formats (MXF, XDCAM, ...)
- QA, tests, stability.
- Back/Forward-Porting between FFMPEG, FFMBC and HEAD.

«In House» **Icecast** Maintainer.

- Patch to add new streaming formats (FLV).
- Code Auditing for Performance and Scalability.
- Massive code cleanup (30+ patches sent to icecast-devel).

Side projects

- Porting/Fixing DVB drivers (C Kernel Linux).
- Designing and Developing a test framework for the internal Transcoding/Wrapping tool (Python, C).
- Optimize internal development processes (SCM, Release Management, Workflow and tools).

R&D SOFTWARE ENGINEER:

2007-2009 *Linux Kernel Filesystem*

I joined the SGI File-Systems R&D group in Melbourne to work mainly on the `xfs` File-System.

DMAP1 (Data Storage Management API) maintainer.

Parent Pointers feature for `XFS`.

Wrote a File-System torture suite (C).

Migration of the source control from a closed source internal tool to `git`.

- Wrote a set of scripts to migrate the old content to Git and keep the old SCM
- up-to-date when working in git (Perl).
- Wrote documentation, gave presentations to the group and orchestrated the
- Git transition.

Maintained large patchsets between diferent versions of the Linux Kernel.

Linux Community interaction, via Mailing-Lists and Real-Life events.

EMBEDDED LINUX ENGINEER:

2007 *Embedded Userland, Kernel Drivers & RT-Linux*

Open Wide is the leading open source specialist in France.

Open Wide OS41 provides consulting, engineering, support and training services to a wide portfolio of clients from specialized medium companies up to the Fortune Forty.

My diversified missions brought me to:

Conceive, develop and deploy Embedded Systems build process and software architecture (C, Python, Perl, Make, Shell).

Linux Kernel Hacking:

- Kernel Device drivers (mainly Flash Devices/MTD).
- Fix bugs in a complex code base (Real-Time & Embedded Systems).
- Port code between different versions of the Linux Kernel.
- Study of the LTT and `PREEMPT_RT` Patches-sets

Develop QA tools for Embedded Systems build process (Perl, Python).

Debug and Optimize code for size and performance (C).

Re-implement core components of the embedded system (Low Level C).

Write Documentation, and make commercial presentations.

VOIP CONSULTANT: ASSEKURANSA

2006 *VoIP interconnection*

I realized various missions in the IT departement of Assekuransa:

Advice and design of Postfix transports (Perl).

Design and Deploy a VoIP solution between their Mexican and Argentinian office (Asterisk, SIP Phones).

Develop a Monitoring and Reporting tool for their local Hardware PBX (Perl, DBI/SQL).

VOLUNTEER WORK

BACHILLERATO POPULAR

2015 I joined a Popular Secondary School as a Mathematics teacher

PROGRAMA ENVÍO

2010-2011 I worked with the Secretary of Social Inclusion from the Avellaneda city to conduct an educational experiment on bringing the 'Hacker Mindset' to teenagers in the 'Isla Maciel' neighborhood

I used Free Software Tools to:

Technical Apropiation Process

- Demystifying technology.
- Understanding how everyday tools are made (Facebook, Google).
- Search-Hack-Remix ideology.

Introduction to Computer Security

- Exploits and their mitigation.
- Understanding the Political implications of Computer Security.
- Basic Cryptography.

SOLAR->CHELA

2006 *Education, Social Work & Sysadmin*

SoLAr (Software Libre Argentina), is an NGO helping the adoption of FLOSS in Argentina. They helped me get through 2 missions:

- cheLA is an NGO in Buenos Aires, experimenting with arts and technology, and using both to unite Parque Patricios inhabitants. I was sent there by SoLAr to help them with their IT issues, migrate their systems to GNU/Linux and Develop tools that their artistic experiments required (C, Perl, Python).
- Casa VeLa is an NGO dependent of the Alfonso Farias institution that helps AIDS infected/affected kids providing educational assistance, and giving them access to various workshops.
 - I gave a Computer Science & IT workshop to 6-16 year olds.
 - I also was in charge of Installing and Adminstrating the Computer Lab. The network design had to cope with the scarce resources and unpredictable network topology/stability.
 - I developed a set of tools based on Avahi to auto-configure and start using services while they appeared on the network (C, Python).

HOBBIES

TANGO

FREE SOFTWARE

Butter Project
Founder & Leader
<https://butterproject.org/>

Popcorn Time
Technical Leadership
<https://git.popcorn.time.io/>

Personal Github
Hacks Githubs <https://github.com/xaiki/>

Politics and Society
Writeups and Hacks (spanish)
<https://github.com/malherc/>

IceCast
30+ patches [icecast-devel](#)

Debian
Full Developer [d.b. Page](#)

INAES-tic
State Hacks [github](#)
<https://git.inaes.gov.ar/>

Linux Kernel (XFS)
[commits git Log](#)

TRAVELS

ARTS AND MORE

SKILLS

HUMAN LANGUAGES

Spanish
lengua materna ★★★

French
lengua paterna ★★★

English
2 años de vida en Australia ★★★

Portuguese
lived and worked 9 months in Brazil ★★½

MANAGEMENT

SCRUM/Agile ★★★

Arquitecture ★★★

Proceses ★★★

LANGUAJES

C, UNIX sh ★★★

JavaScript, CSS, Lisp ★★★

Python, Perl ★★½

BOFH

Packaging ★★★

SysAdmining ★★★

Virtualization and Containers ★★½

CONFERENCES

2018_DIC **CHARLAS AGETIC** LAPAZ

CONGRESO INTERNACIONAL DE SEGURIDAD INFORMATICA #1 COCHABAMBA

CONGRESO INTERNACIONAL DE SEGURIDAD INFORMATICA #2 COCHABAMBA

HACKERCAMP RTODEJANEIRO

SOLIDARIOS2018 FORTALEZA

CONGRESO FDE/MIDIANINJA BELLEHORIZONTE

VENEZUELA DIGITAL CARACAS

CULTURAS LIBRES LAPAZ

COMUNES BUENOSAIRES

EMERGENCIAS #1 RIODEJANEIRO

EMERGENCIAS #2 RIODEJANEIRO

1ER FORO DE CULTURA DIGITAL BUENOSAIRES

NUEVOS ESCENARIOS DE LA COMUNICACIÓN POLÍTICA EN EL ÁMBITO DIGITAL, LAHABANA

JORNADAS DE TECNOLOGÍA ABIERTA, UNPAZ JOSECPAZ

MEETUP NODEJS BUENOSAIRES

JORNADAS "ARMAS PARA EL PUEBLO", UNLP LAPLATA

JORNADAS DE TELEVISIÓN DIGITAL, UNQUI QUILMES

PUCARA POSADAS

MICA PATAGONIA BARILOCHE

ECUENTRO DE ECONOMÍA SOLIDARIA #1 TANDIL

ECUENTRO DE ECONOMÍA SOLIDARIA #2 TANDIL

ARTILLERÍA DEL PENSAMIENTO VS. FÁBRICA DE MENTIRAS, CARACAS

LINUX.CONF.AU (MINICONF) MELBOURNE

CRISOL LAPLATA

ENCUENTRO MAYO SANTIAGO DE CHILE