

Experienced and passionate Computer Scientist and Free Software Developer looking for new challenges.

Niv Sardi,

June 11, 2020

Contents

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

Universit Denis Diderot Paris VII Paris:flagFR:2004_2007

owning the diplomataria

Maths and Computer Science Masters 2007

Universit Denis Diderot: Maitrise de Mathematiques 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 2005

Universit Denis Diderot: Licence de Mathematiques et d'informatique

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

Skills

Human Languages

Spanish

perfect

lengua materna

French

perfect

lengua paterna

English

perfect

2 aos de vida en Australia

Portuguese

intermidate

lived and worked 9 months in Brazil

Management

SCRUM/Agile perfect

Arquitecture perfect

Proceses perfect

Lenguajes

C, UNIX sh perfect

JavaScript, CSS, Lisp advanced

Python, Perl intermidate

BOFH

Packaging perfect

SysAdmining advanced

Virtualization and Containers intermidate

Latest Work Experience

Presidencia de la Nacion: Director of Tecnology BuenosAires:flagAR:2019

I took part of the intervention of a sector of the Presidencial office. My role was to ensure a smooth operation of the IT infrastructure during the intervention. I also designed plans that are still in execution to migrate the office to Free Software and develop secure communications.

Work Experience

Free Software I+D Consultant LaPaz:flagBO:2019

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

Head of Software Developement: Evo Morales Campaign

Lead the developement of the tools used to gather social media data during the Evo Morales campaign. I articulated with diferent political actors and was able to negotiate political tensions to create a framework of colaboration.

DataViz Expert: Projecto 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.

Year Off

2018_2019

failing at trying to do nothing

In 2018 i decided to take a break from working a full time job, i thought it'd be beach and coconuts but i ended up getting involved with various social organizations solving their technical issues.

Consultancy

- Banco Palmas Helped design and implement PalmasNet a community effort internet provider in a Favela in northern Brazil. Since then, I've acted as a technical guidance for the PalmasLab an in-favela technical lab.
- Ni Una Menos Ongoing Tech and Security consultancy for the organization.
- MIDIA Ninja During various 'living experiences' I pushed the boundaries of the organization's use of tech from Social Networks Monitoring to the experimentation of Data Analysis Platform or various hacks and tools for the organization and their peers.
- WABA Networks designing the open-sourcing of Moneda PAR and Discoin

Research

- Partido Dos Trabalhadores I joined in the efforts to analyze the WhatsApp use during the 2018 Brazilian elections. Working with journalists and activists to make sense of the architecture used by the PSL both technically and socially.

- MECA/Mezenazgos Helped with an investigation into the City of Buenos Aires spending into cultural subsidies

Distributed R&D FLOSS Engineer
cisco:flagUS:2016_2017

SanFran-

getting data to places you wouldn't believe



ENDLESS

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 ConsultantParis:BuenosAires:flagFR:2011_2015:flagAR

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 Energia de la Nacin corpSecEner:BuenosAires:flagAR:2015

- Programa Hogar Citizen Relationship and data analysis, WebApp (**MeteorJS**).

Technical Advising and Development: Ente Nacional Regulador de la Electricidad corpENRE:BuenosAires:flagAR:2015

- Crisis Data Analysis Real Time interactive Maps (**MeteorJS**).

Distributed Systems on BlockChain and the DHT: BlockTechcorp-Blocktech:SanFrancisco:flagUS:2014_2015

- Software Architecture Scaling in a distributed world, Project Alexandria (**NodeJS**).
- Mixed DHT on UDP/Websockets Massively distributed Seeding/Leeching App built with **WebTorrent** and **MeteorJS**.
- Multi Plataforms Apps **node-webkit** and web.

Technical Advising: Editorial de la Universidad de Buenos Aires
corpEUDEBA:BuenosAires:flagAR:2014_2015

- Digital Television DTV project of Academic TV channel built with Open Source Technologies.
- Air TV Proof-Of-Concept Simple TV station built around the **CasparCG** Software Stack.

Technical Advising and Development: Ministerio de Educacin de la Nacin
corpMinEd:BuenosAires:flagAR:2014

- Educational Streaming Distributed Map of Student Radios with bootstrap App that runs on the state provided Netbooks of **Connectar Igualdad** (NodeJS, d3, IceCast).

Technical Advising: Comisin Nacional de Comunicaciones Buenos Aires:flagAR:2014

- Mesh Networks Civic networks in rural zones (Ri Negro Region).
- Open Source Radio Published Documentation to operate Radio Stations with Free Software.

Technical Advising and Design: Universidad de QuilmescorpUNQUI:Quilmes:flagAR:2014

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

Video Research: Neuropolis
corpNeuropolis:BuenosAires:flagAR:2013

- Frame Drop Image reconstruction with Optical Flow (**FFMPEG**, **OpenCV**).

Technical Advising and Proceses: SAGEM Paris:flagFR:2011

- Open Source for big corporation Integration between the R&D and Open Source communities.

Technical Advising and Performance: SmartJogParis:flagFR:2011

- Optimization of connection handeling for Radio and TV streaming Software 4 performance boost.

Tecnico-Political Adviser: Comisin de Tecnologia del Instituto Nacional de Asociativismo y Economa Social Bueno-sAires:flagAR:2012_2013



Open Technology for a socialy concious State

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

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

Incubation of a Cooperative Startup

- RoadMap Design and Project Arquitecture
- 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 Playout System.

R&D FLOSS Consultant:

Caracas:flagVE: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:

London:flagGB: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:

BuenosAires:flagAR:2010_2011



Hacking for the (socialy excluded) masses

The Social Inclusion Office of the Avellaneda city gave me a white card opportunity to run a little experiment in Isla Maciel (socialy 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:

Paris:flagFR: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 Tecnicos and Methods** into the Corporate Workflow.

R&D Software Engineer:

Paris:flagFR: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:

Melbourne:flagAU:2007_2009



Linux Kernel Filesystem

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

DMAPI (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 different versions of the Linux Kernel.

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

Embedded Linux Engineer:

Paris:flagFR:2007



Embedded Userland, Kernel Drivers & RT-Linux

Open Wide is the leading open source specialist in France. Open Wide OS4I 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 BuenosAires:flagAR: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).

Conferences

Charlas AGETIC

LaPaz:flagBO:2018_Dic

Debian Packaging Demistifying the daily life of a maintainer

Congreso Internacional de Seguridad Informatica #1Cochabamba:flagBO:2018_Dic

DDoSing modern democracies The use of Whatsapp and FakeNews in the Bolsonaro campaign

Congreso Internacional de Seguridad Informatica #2Cochabamba:flagBO:2018_Dic

Risk Modeling Beeing paranoid doesn't mean you're not beeing followed

HackerCamp RioDeJaneiro:flagBR:2018_Oct

How can we be free New tools for databased societies

Solidarios2018 Fortaleza:flagBR:2018_Sept

CryptoCoins for the Social Economy What is crypto and why it matters for Community Banking

Congreso FDE/MidiaNinja BelloHorizonte:flagBR:2018_Jul

Buliding a Hacker Front How can we create sane hacker communities

Venezuela Digital Caracas:flagVE:2017_Oct

Piracy Culture In a world of pirates it'd be dull not to be one

Culturas Libres LaPaz:flagBO:2016_Oct

3 ways to change the world with tech from software (PopcornTime), from the streets (El Tango No Se Clausura) or industry (Endless) how can you use your skills for good

Comunes BuenosAires:flagAR:2016_Aug

Law Order and Piracy How the law bends with the excuse of piracy

Emergencias #1 RioDeJaneiro:flagBR:2015_Dic

Internet as a Public Space w/Joana Veron/Sergio Amadeus/Peter Sunde/

Emergencias #2 RioDeJaneiro:flagBR:2015_Dic

North & South views on technology w/Lawrence Lessig/Peter Sunde/

1er Foro de Cultura Digital **BuenosAires:flagAR:2015_Oct**

What does Popcorn Time mean for local media consumption Demystifying Copyright

Nuevos escenarios de la comunicacin poltica en el mbito digital, **LaHabana:flagCU:2015_Jun**

Challenges of the new latinoamerican connectivity and capacity Cultural Sovereignty through control of the broadcasting tools.

Jornadas de Tecnologia Abierta, UNPAZ **JoseC-Paz:flagAR:2015_May**

Popcorn Time: An Argentine Adventure, The history of the popcorn-time.io project from Argentina to the world.

MeetUp NodeJS **BuenosAires:flagAR:2014_Jul**

Real Time and Video in NodeJS The MBC Payout Secret Sauce: Socket.IO, Redis and a lot of CRUD.

Jornadas “Armas para el Pueblo”, UNLPLaPlata:flagAR:2014_Oct

Patria o Netflix: Some thoughts on digital communication, The responsibility of the OTT media on the political education of our youth.

Jornadas de Televisin Digital, UNQUIQuilmes:flagAR:2014_Feb

Cooperative Entrepreneurs, The Startup’s Management theory refreshed for the Social Economy field

PUCARA **Posadas:flagAR:2014_May**

Free Software for Broad Casting Why we can’t build media sovereignty without free tech

MICA Patagonia **Bariloche:flagAR:2013_Dic**

WallKinTun TV, 100% Free Software Television

Ecuentro de Economa Solidaria #1 Tandil:flagAR:2012_Nov

Hackers in the State Changing Politics with a Hacker Philosophy.

Ecuentro de Economa Solidaria #2 Tandil:flagAR:2012_Nov

The Politics of Git, What does git mean if looked at from a political point of view.

Artillera del Pensamiento Vs. Fbrica de Mentiras, Caracas:flagVE:2011_Sep

The technology at play in the recent social-networks fueled social movements: How to use them, how to make them, how to block them, and how to make sure we can use them when they (try to) block them.

Linux.Conf.Au (MiniConf) Melbourne:flagAU:2008_Jan

Why don't the Big Guys Like Debian, Debian in Big Corporations

CriSol LaPlata:flagAR:2006_Sep

Report on Education with FLOSS, the CasaVela case

Encuentro Mayo SantiagoDeChile:flagCL:2005_May

Debian, A Social Success

Volunteer Work

Bachillerato Popular BuenosAires:flagAR:2015

I joined a Popular Secondary School as a Mathematics teacher

Programa Envin BuenosAires:flagAR: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.

SoLArCheLA

BuenosAires:flagAR: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 Administrating 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

Passionate dancer I've also created “#ElTangoNoSeClausura” an organization that deals with Milongas foreclosures in Buenos Aires, through it we articulate various actions with the rest of the cultural social movements in the city.

Free Software

Butter Project



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

Popcorn Time



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

Personal Github



Hacks Hacks Hacks <https://github.com/xaiki/>

Politics and Society



Writeups and Hacks (spanish) <https://github.com/malbec/>

IceCast



30+ patches icecast-devel

Debian



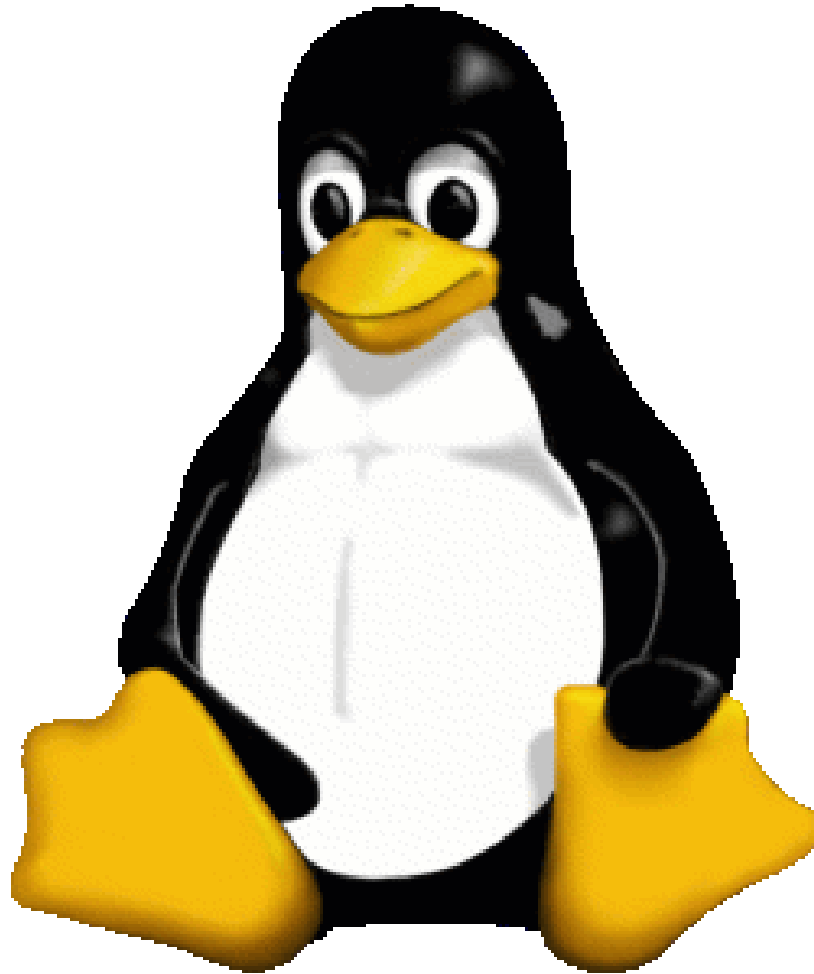
Full Developer QA Page

INAES-tic



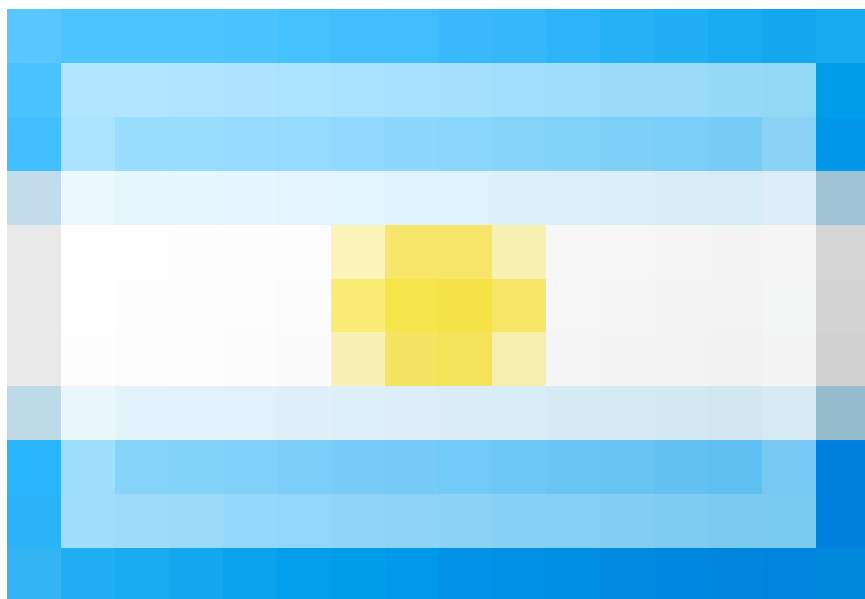
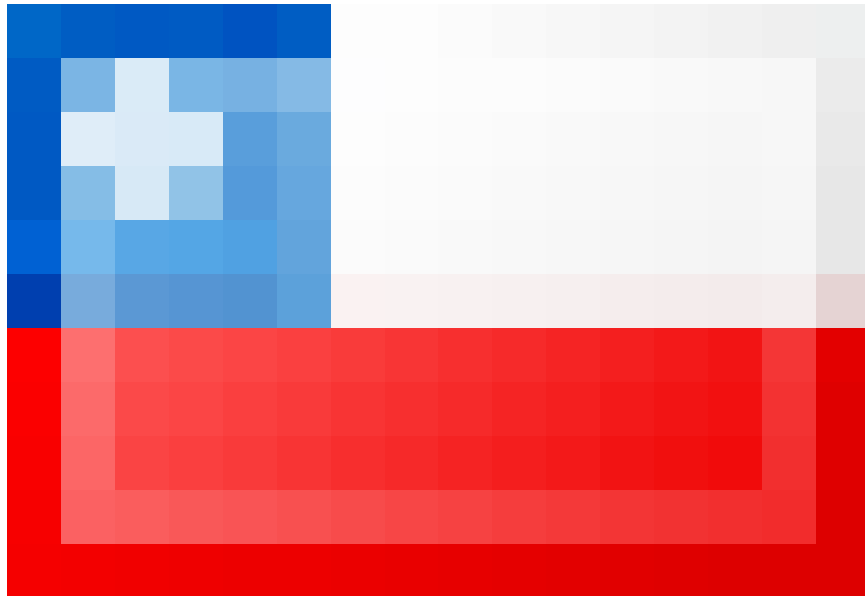
State Hacks GitHub <http://tic.inaes.gob.ar>

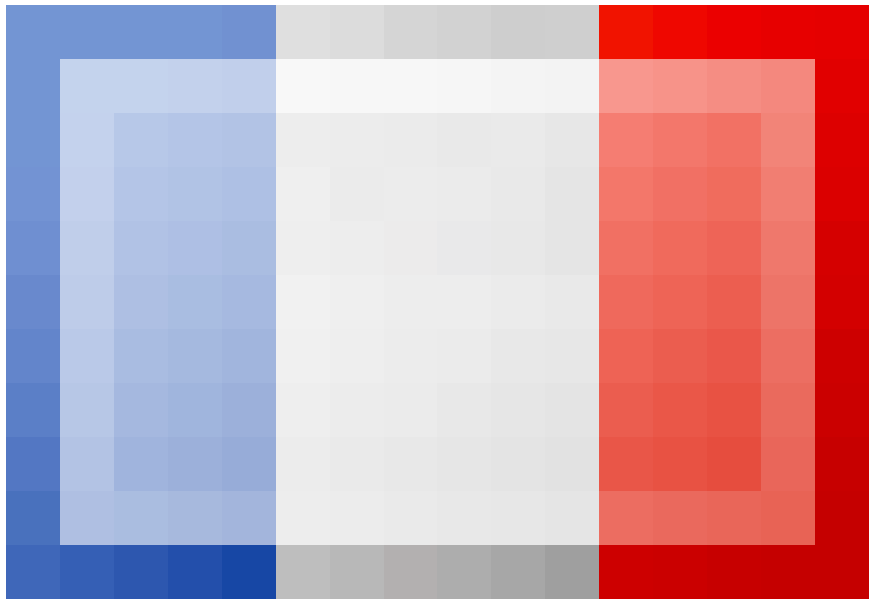
Linux Kernel (XFS)

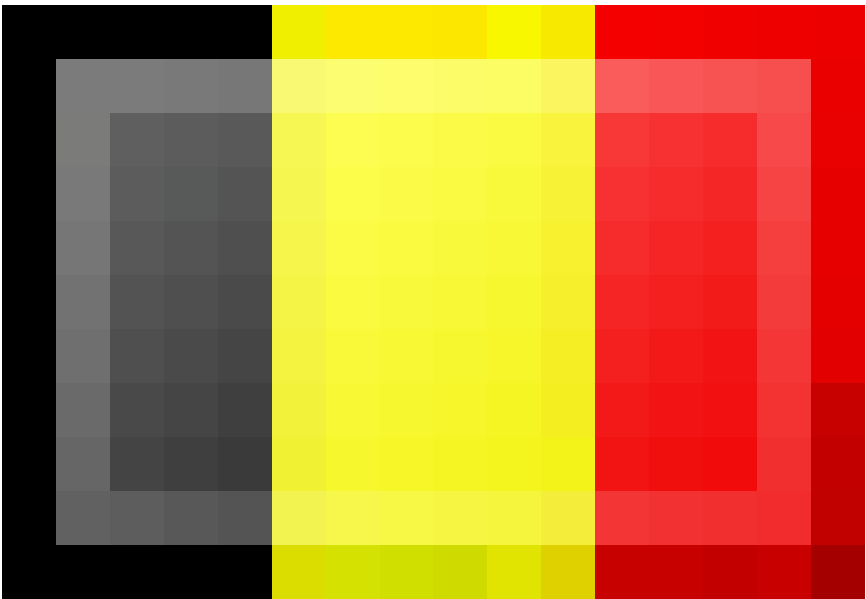
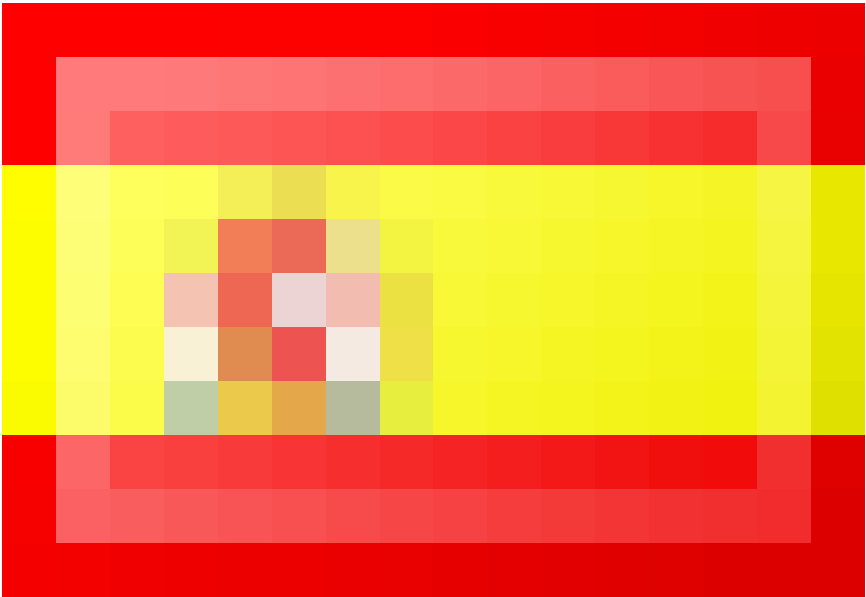


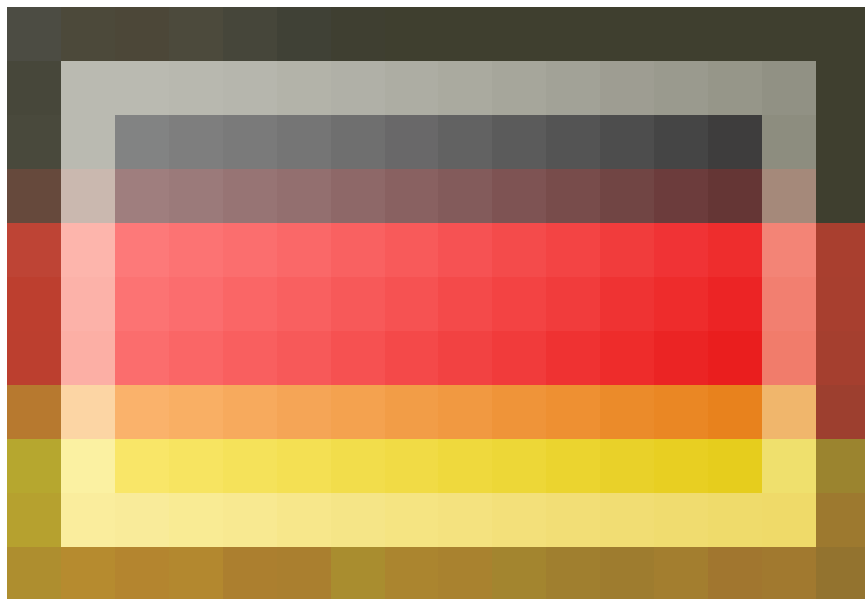
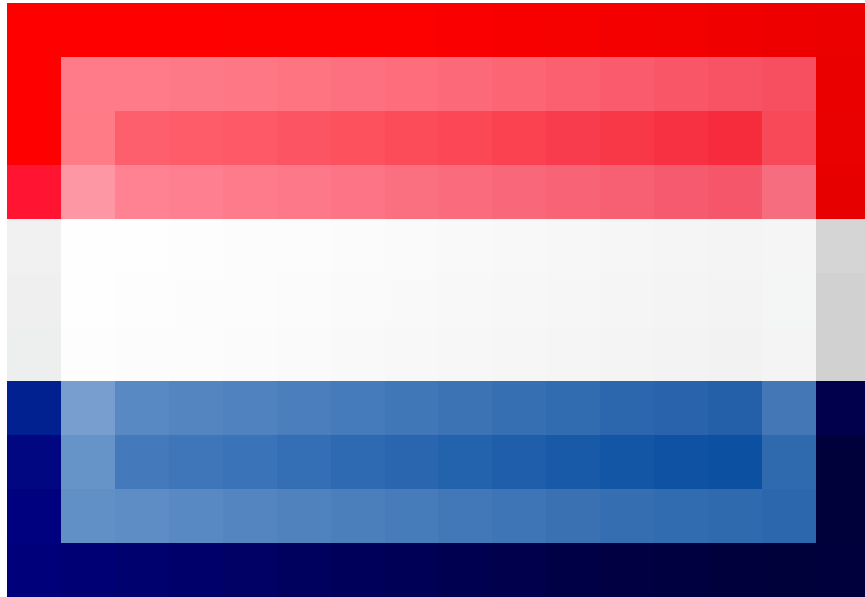
Commits Git Log

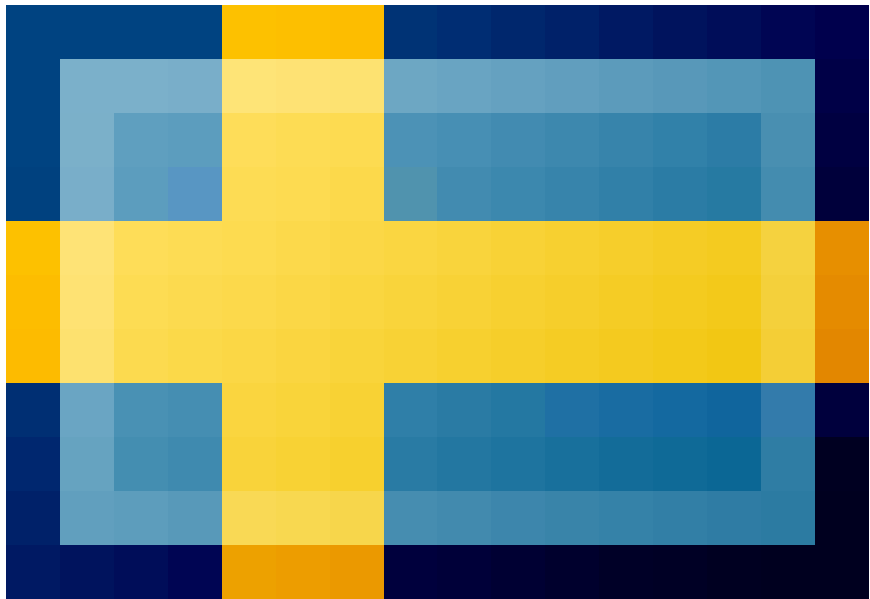
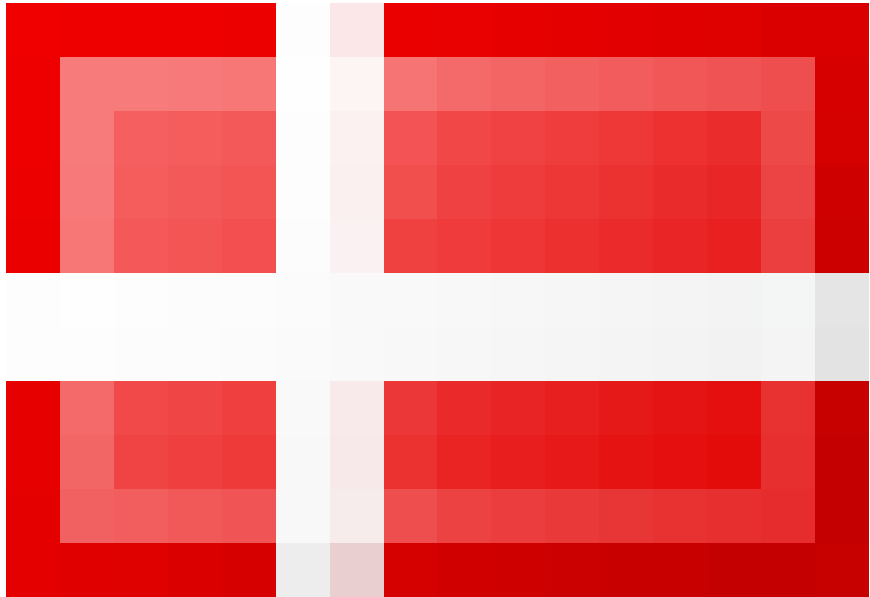
Travels

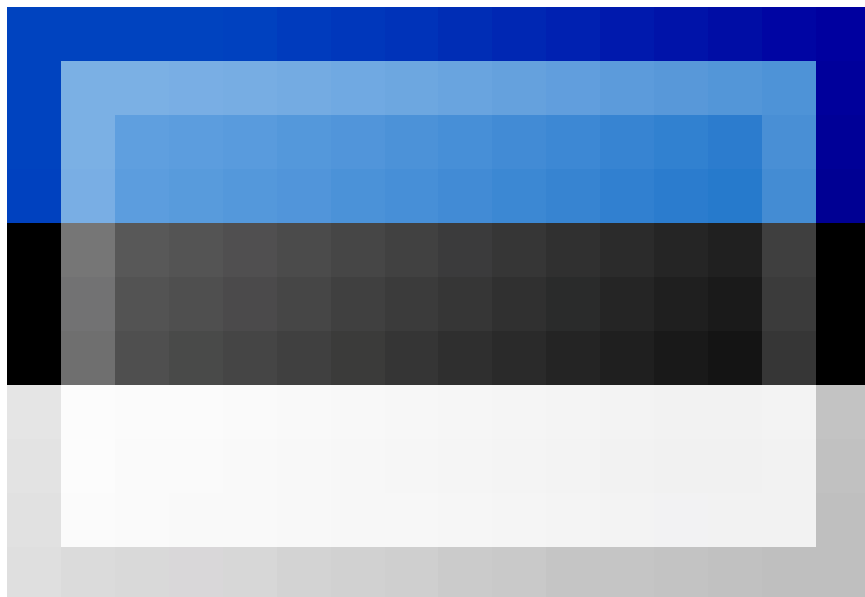


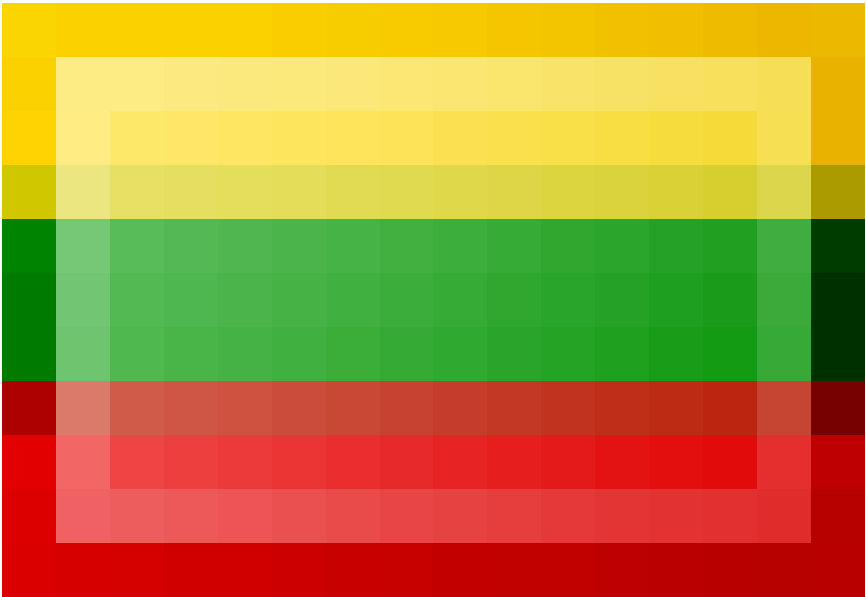


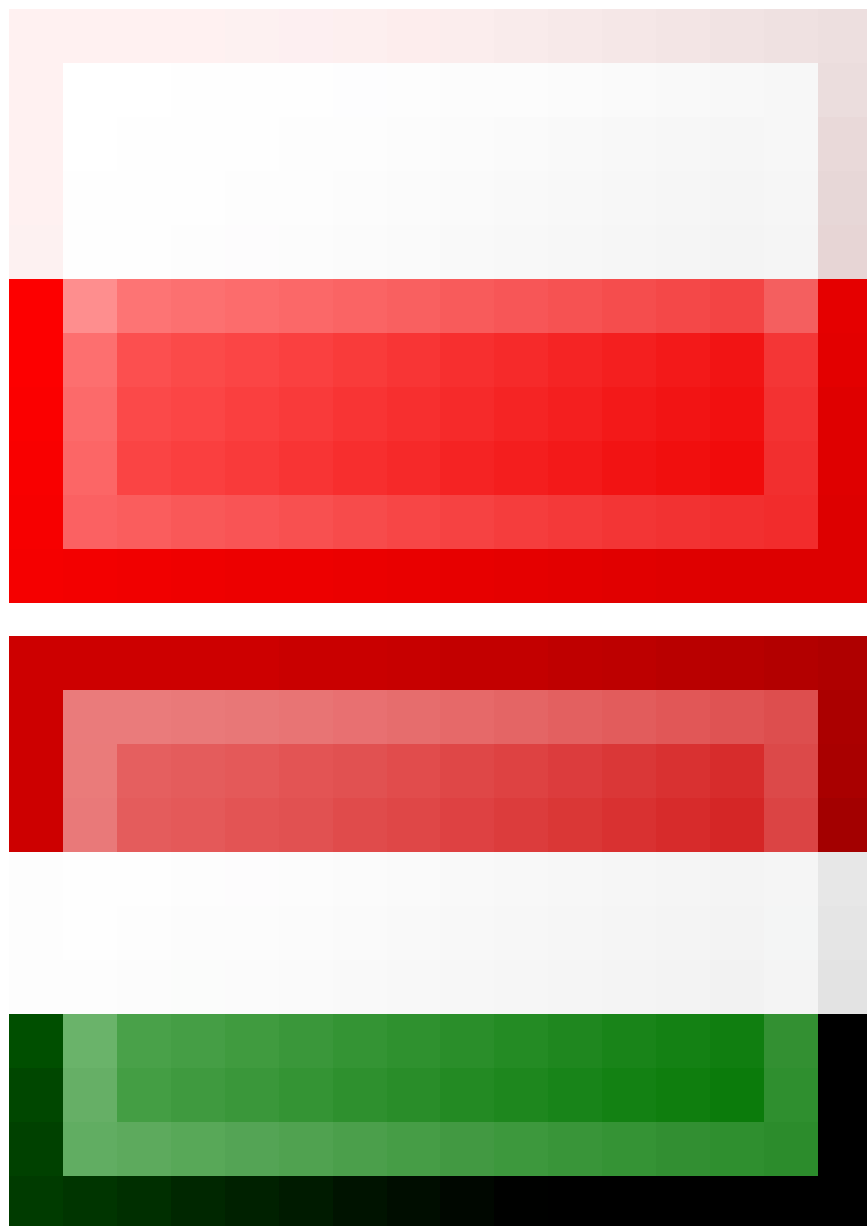


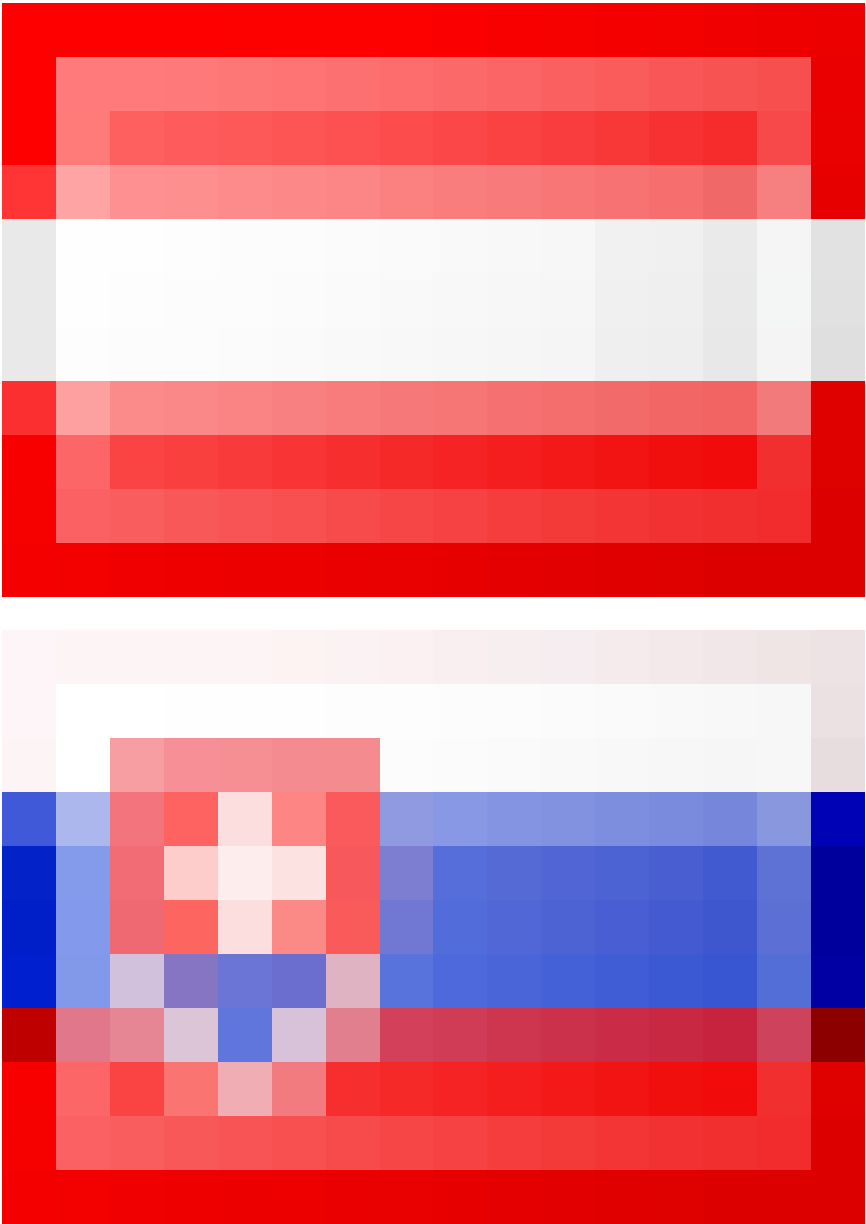


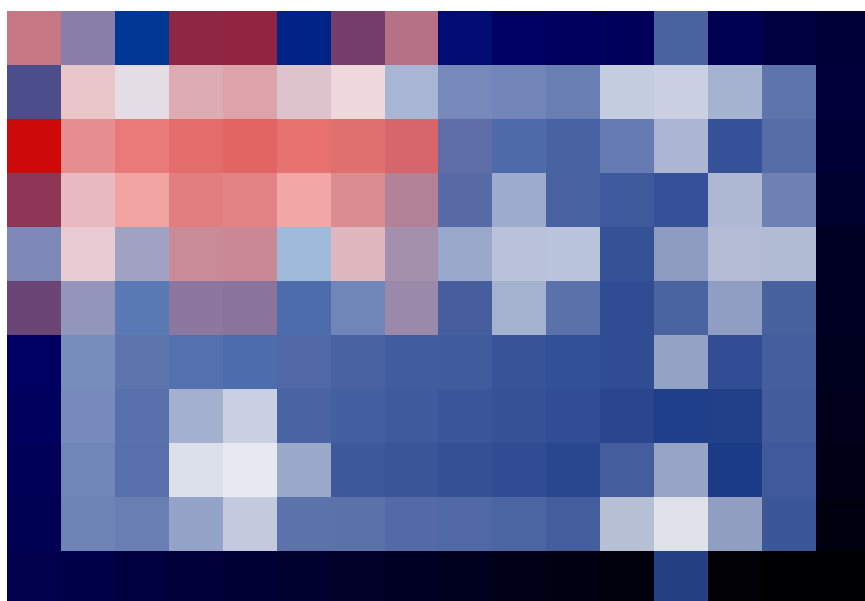
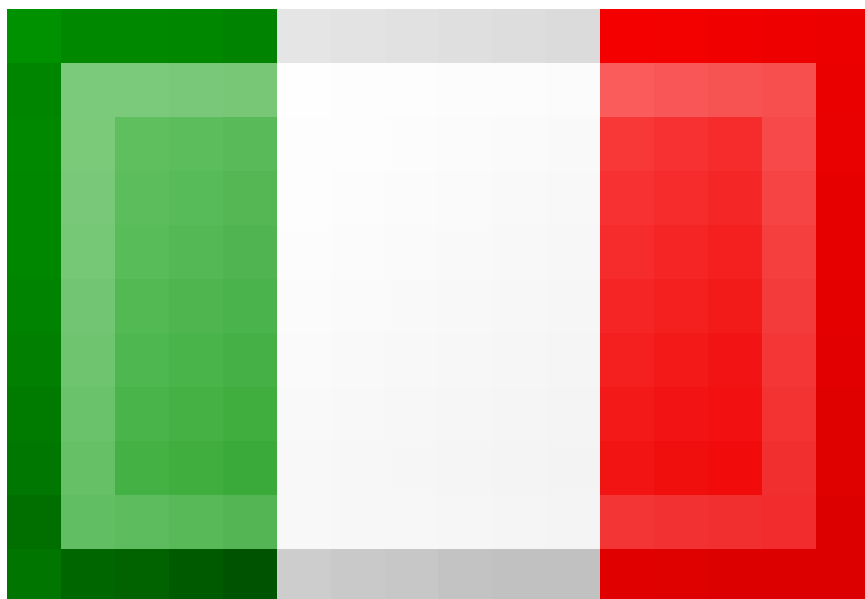


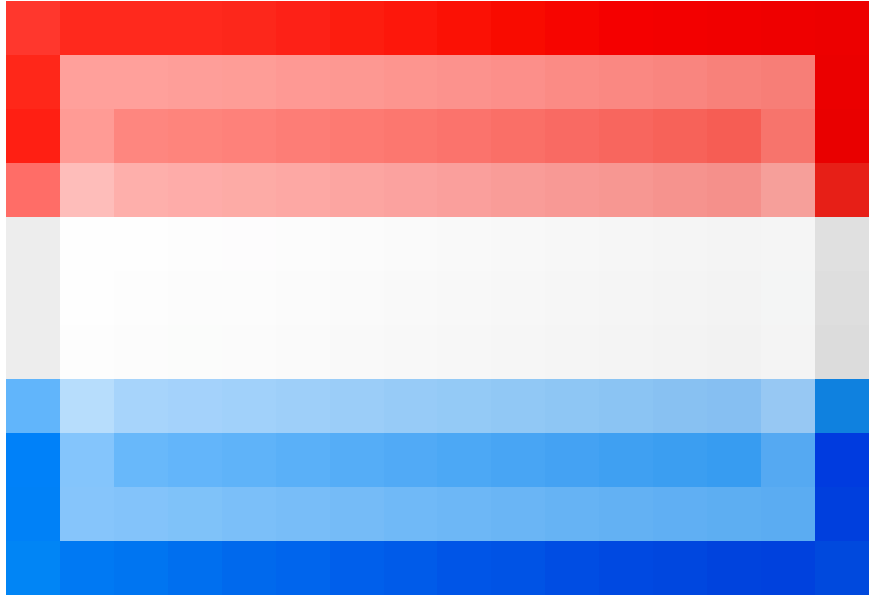


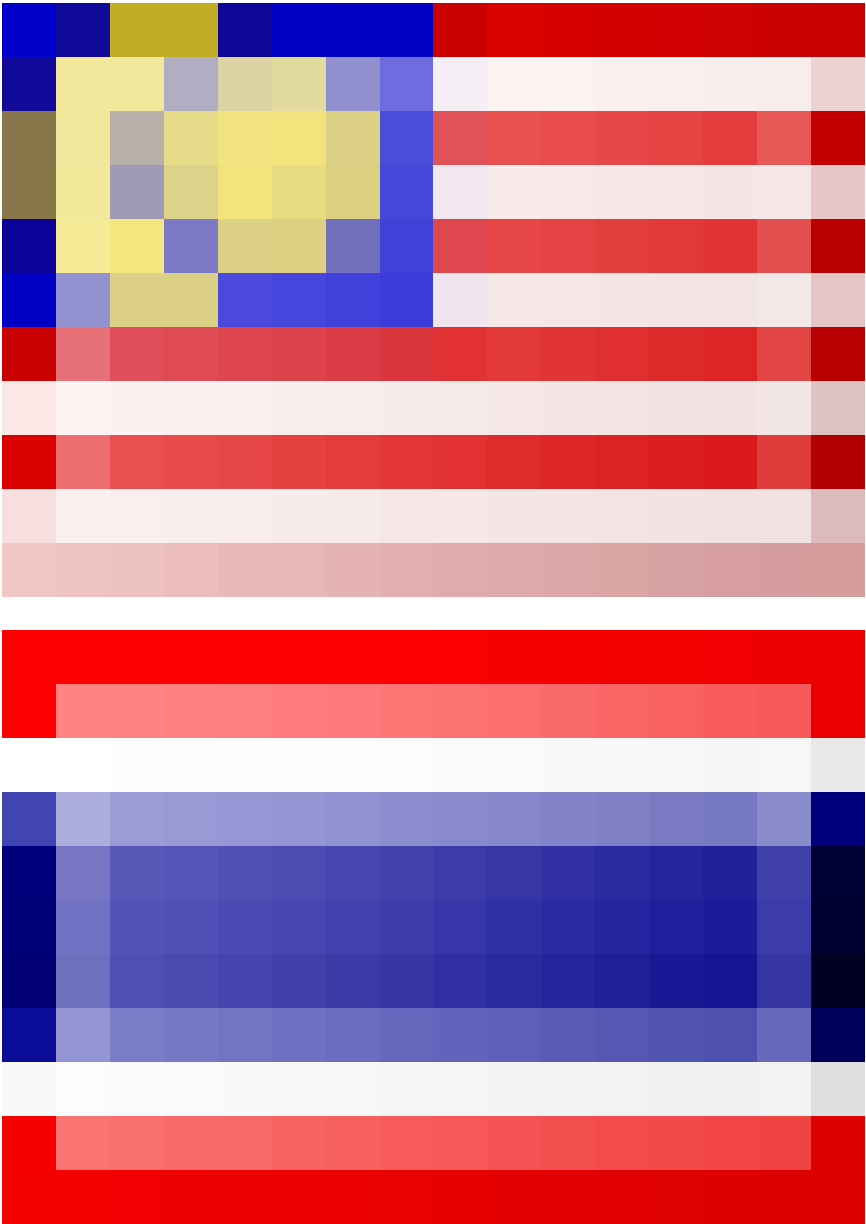


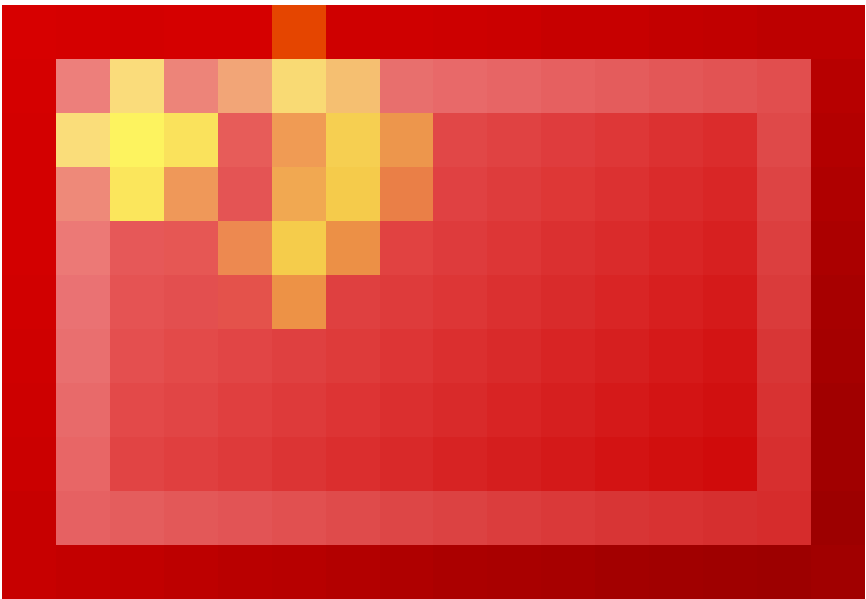
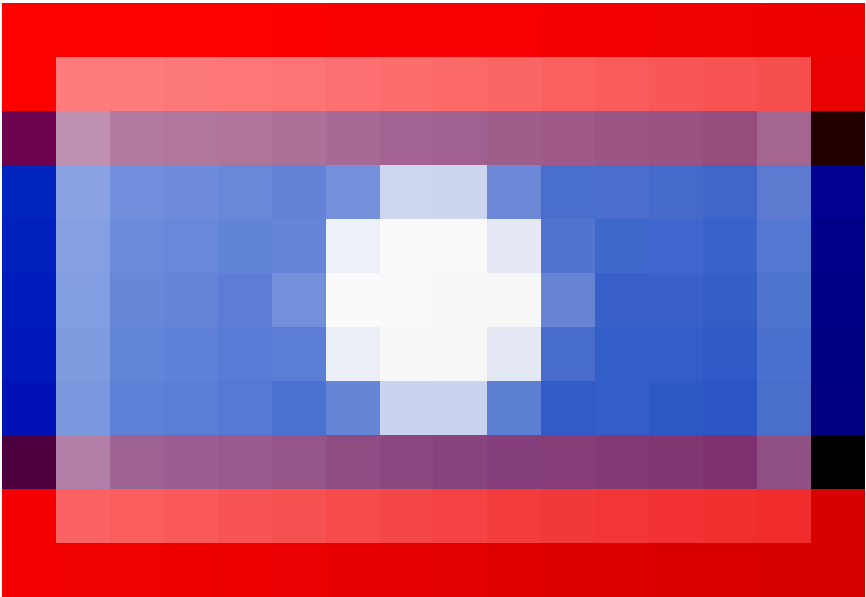


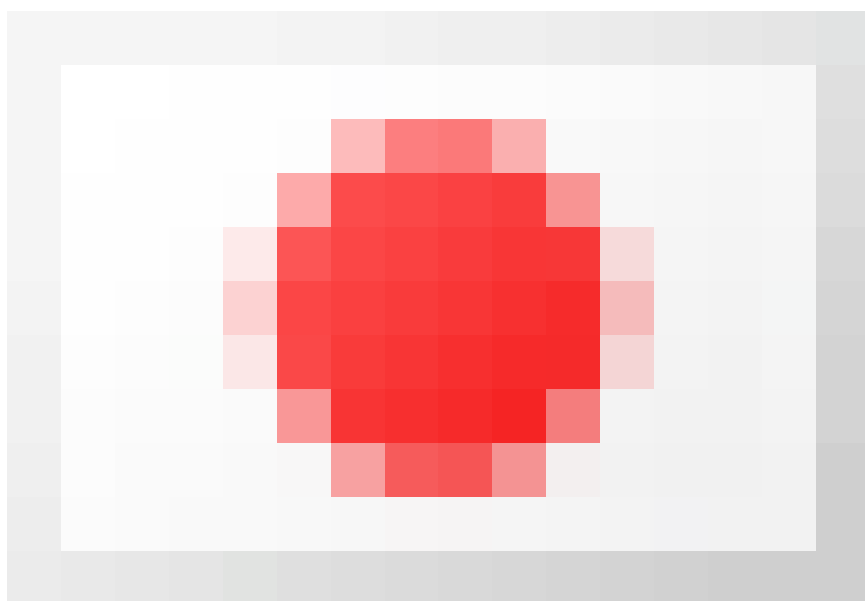
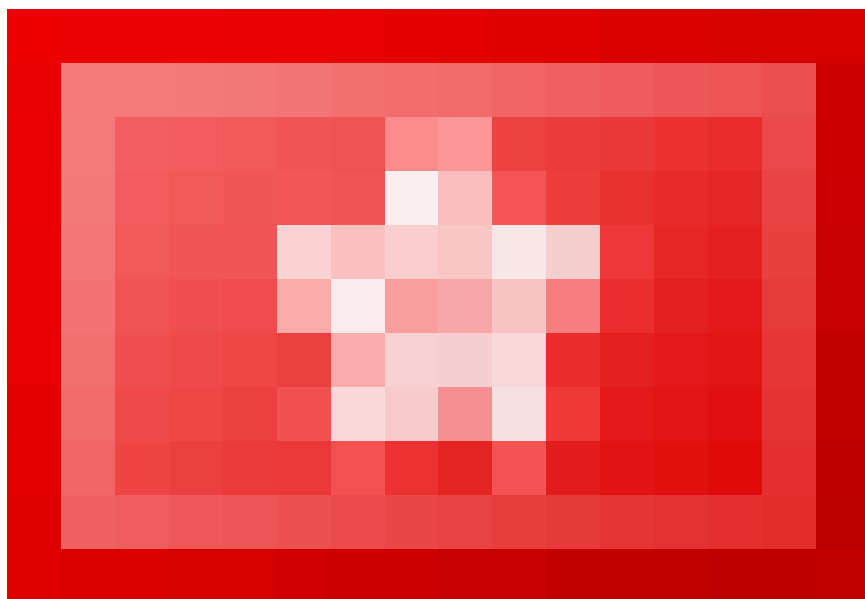


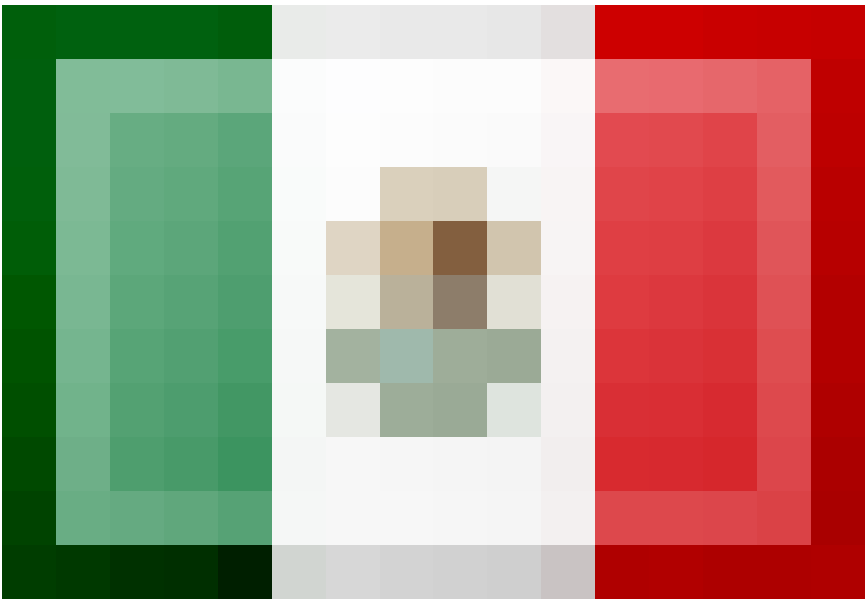


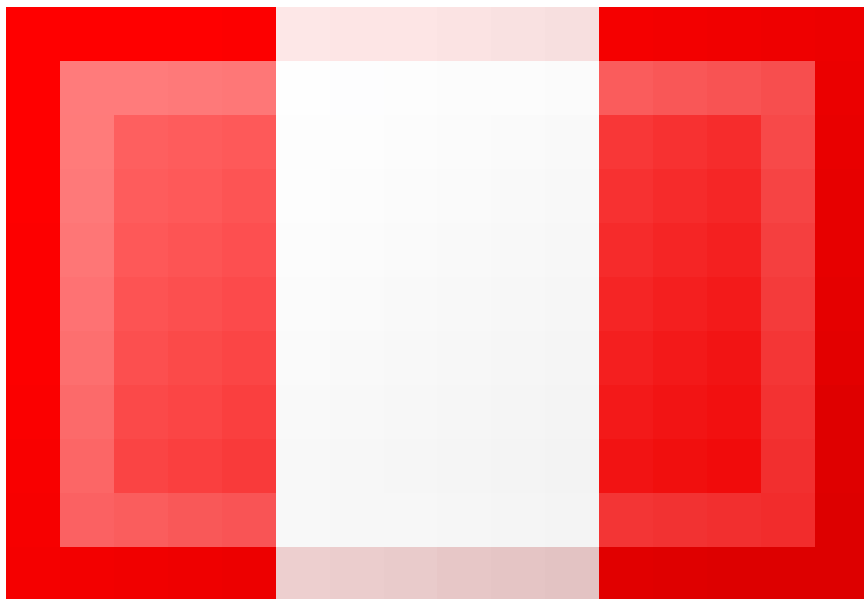
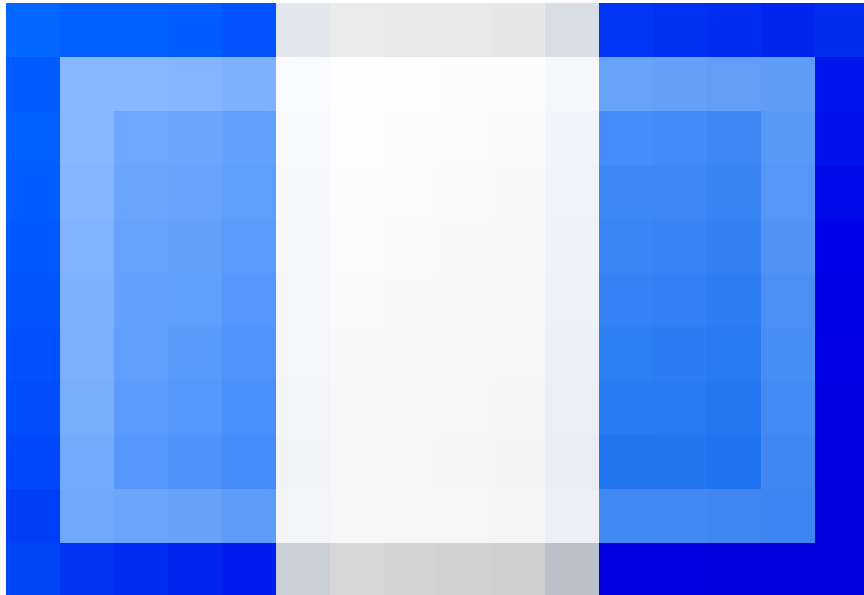


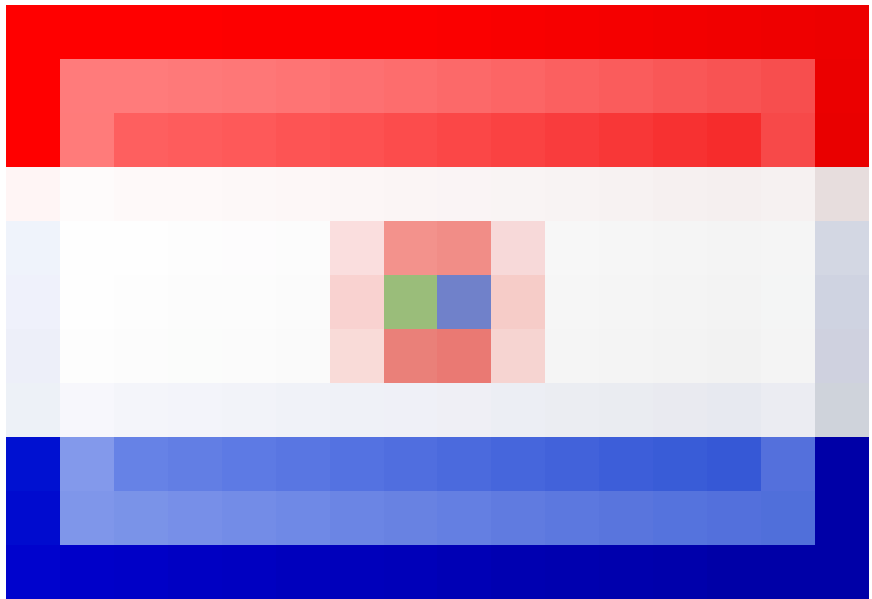


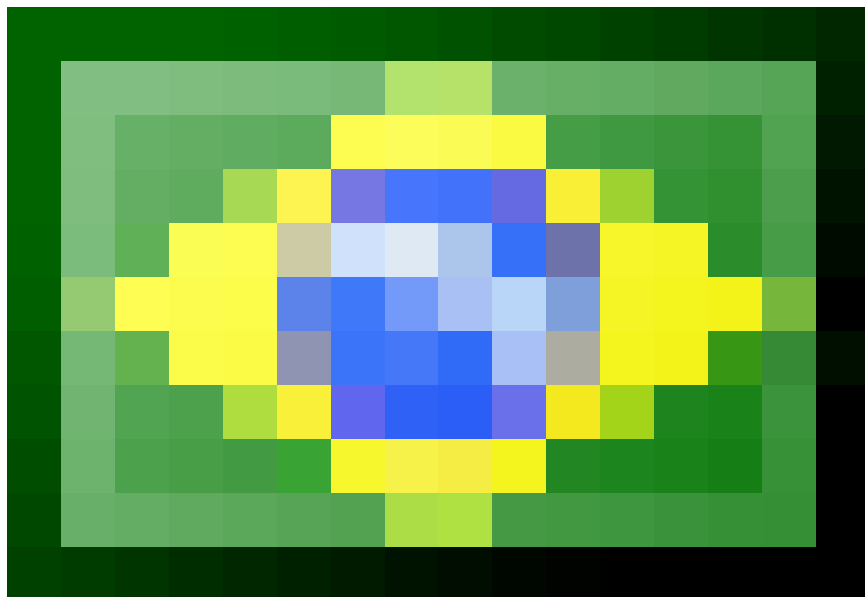
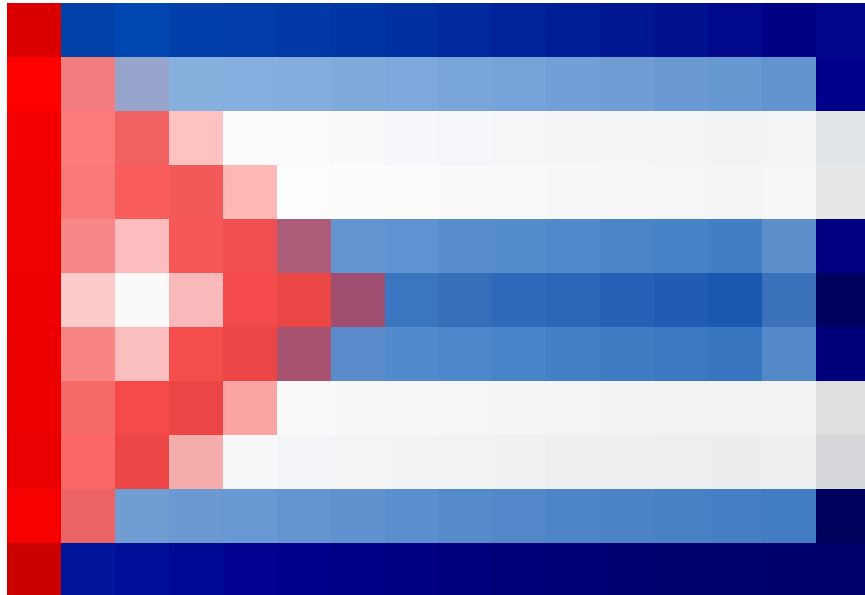












Arts and More

Guitar, Violin, Bandoneon, Photography, Experienced Tango Dancer. small set of Linux servers for personal purposes (Mail/Web/...)