SOFTWARE ARTISAN & SYSTEMS GARDENER

Holistic thinker with experience in the execution of projects involving design, implementation, and sustainability of systems interweaving humans and technology.

PROFILE

- Experienced software developer with the ability to bridge the technical and humanistic communities.
- Self motivated achiever with a perseverant attitude aimed at steering technology for the common good.
- Recognized Free Software contributor and advocate.

TECHNICAL EXPERTISE

- Long trajectory in promoting and developing solutions based on GNU/Linux platforms and other Free Software technologies for the Web and Desktop.
- User-centered interface designer with a focus on learning environments.
- Meticulous systems administrator with experience in critical enterprise systems.
- Proficient in several computer languages, such as Python, Javascript, Shell, Ruby as well as SQL, HTML, CSS etc.
- Assessment of requirements, drafting of specifications, technical evaluation.

OTHER POSSIBLY RELEVANT EXPERTISE

- Experience giving workshops to children and adults.
- Have spent long periods off grid in communities in the Amazon region, working with my hands and learning from traditional culture leaders.

WORK EXPERIENCE

Systems Gardener. PublicLab.Org, USA. Sep 2015 – *to date*.
- I am responsible for maintaining platforms, databases and servers related to citizen environmental science and monitoring.
- Moved most infrastructure to containers (Docker and Kubernetes).
- Automated staging environment and backups with Jenkins CI (self hosted).
- Setup and improve testing stack using Travis CI and Gitlab CI.
- Google Summer of Code Mentor 2018.
- Developed a derivative Operating System image for Raspberry Pi for environmental monitoring kits.

Developer. Arbio Perú, Madre de Dios, Jul 2017, Jan-Mar 2018.
- Developed a Progressive Web App for surveying endangered trees.
- Developed a tree showcase and adoption platform.

Developer. Arbio Perú, Madre de Dios, Sep-Oct 2015.
- Developed a system for projecting locations for an agroforestry plantation of N crops distributed according to set of rules / parameters.

Lead Developer: "Peru Learns English". Ministry of Education, Peru. Dec 2014 – Feb 2015.
  • Delivered spaced repetition flashcard vocabulary learning software, including 3 embedded games and selected video content, under the GNU GPLv3 license.

Workshop Facilitator: "Artisan Videogame Programming in Python". OLPC (Open Laptop Per Child) / ANSPE / Town Hall of Chia, Colombia, 2014
  • Taught Python to children 10-12. Delivered 5 complete games with them.
  • Developed and published sprite based python learning environment.

Mentor "Google Code In 2013". Sugar Labs Project

Mentor "Google Summer of Code 2012". Sugar Labs Project

Technical Leader / Buildmaster. Ministry of Education, Peru. 2012 – 2013.
  • "*Hexoquinasa*" Localised Updated Operating System Images for the OLPC XO laptop.
  • Default search engine set to *Ecosia*, a project to plant trees around the world. Every search performed by children in public schools contributed to **plant more than 75.000 trees** from 2014 to 2016 (and still going).

Oversight Board Member. Sugar Labs Project, Software Freedom Conservancy (SFC), USA – 2010-2012.

Technical Consultant. IADB Inter-American Development Bank – 2010, 2011 y 2012.
  • Delivered monitoring software for the XO laptop
  • Delivered offline surveying software for the XO laptop

Sugar Activity Specialist. Activity Central LLC, USA – 2011.
  • Converted many Sugar activities to new toolbar design.
  • Developed first prototypes of Web-technologies-based Sugar activities (like Electron).

Co-founder & "Hacker Master Learner". Research & Development (R&D) Team "SomosAzucar.Org", Perú – 2009 - 2018.
  • Promotes Libre technologies in public schools.
  • Contributed Quechua, Aymara and Awajún system locales to GNU Glibc project.
  • Setup automated building and testing of Operating System images (Jenkins CI).

Associate Researcher. Escuelab, Perú – 2009 *ongoing (dormant)*.

Global Application Support Engineer. ISI Emerging Networks, Chile – 2006 a 2007 .
  • Entered as developer. Was promoted to Global Application Support team and put in charge of a massive Autonomy based search engine comprising 30 machines in a cluster.

Web Developer. Dendritas Ltda, Chile – 2003 - 2006.
  • Part time professional level assorted back/front web development

Teaching Assistant. Pontificia Universidad Católica de Chile, 2002 – 2005
  • I gave social psychology and systemic theory, as well as introductory psychology and philosophy.
  • Maintained course websites and collaboration server.
  • Facilitated data collection for faculty researchers (surveyor software).

Publications

- *"Manual de Traducción a Lenguas Nativas"* (2014) - a guide for translating the Sugar Learning Environment into native languages, used in Peru, Nicaragua, Paraguay (by request of Ministry of Education of Peru).
- *"Physics with XO"* (2016) – (translator, original "Física con XO" by Guzmán Trinidad, Uruguay).

Workshops and Conferences

"Pedagogía del Oprimido: Software de la Liberación" FLISOL, Bogotá, Colombia, June 2014.

"Arte con la Tortuga" Campus Party, Bogota Colombia, July 2011.

"Software de la Liberación" TEDx Tukuy, Lima Peru, August 2011.

"Pedagogía del Oprimido" USMP Software Freedom Day, Lima Peru, September 2009.

"Taller de Desarrollo de Sugar" UMSA La Paz Bolivia, February 2008.

Education

- Course: *"Designing a New Learning Environment"* - **Stanford Venture Lab** (MOOC)
- Course: *"Gamification"* **U. of Pennsylvania, via Coursera** (MOOC)
- Undergraduate Studies *(no degree)*:

    Psychology at the **Pontificia Universidad Católica de Chile** 2001-2005

    Engineering at the **Universidad de Chile** 2000
- Primary & Secondary School at Deutsche Schule Santiago , Chile 1999.

Languages

- Spanish: native
- English: fluent
- German: fluent
- Portuguese: fluent

Other

- Karate-Do instructor (2° Dan)