Profile

Goal oriented developer with a background in hardware and electrical engineering and more than 10 years of experience in the technology field. My passion is to use technology to empower people and solve problems in an efficient and innovative way. I'm very serious about using the right tools for the job and I'm always looking for opportunities to learn new software and hardware skills. I believe that strong communication and attention to detail can create high quality technology solutions that improve people's lives.

Skills

SOFTWARE
- Ruby/Ruby on Rails, Python, Objective C, Swift
- Front-end and Back-end Javascript (Node, jQuery, EmberJS, React, Angular)
- Relational and Non Relational Databases (PostrgreSQL, MongoDB)
- HTML / Template languages (ERB, HAML, Handlebars)
- CSS and CSS preprocessors (SASS, SCSS)

- Front-end CSS Frameworks (Bootstrap, Foundation, Bourbon/Neat)
- Data analysis tools (Matlab, R, Python's libraries)
- TDD with Rspec and MiniTest
- Team collaboration with Git/Github
- Continuous integration and deployment (Travis CI, Heroku, Amazon Web Services, IBM Bluemix)
- REST API design. Consumption of external APIs

HARDWARE
- Multilayer PCB Design and Testing. PCB CAD software
- Microcontrollers
- Embedded Systems
- Wireless Sensor Networks

- Communication & Antennas circuit design and testing
- Wired and Wireless Communication protocols
- Measuring Instrumental operation (Multimeter, Oscilloscope, Spectrum Analyzer, Parameter analyzer).

LANGUAGES
Fluent in English & Spanish

Experience

LEAD DEVELOPER, VIJILENT; RALEIGH, NC — 2015 - PRESENT

- Deployed the Back-end Node.js application to AWS and Bluemix.
- Developed an iPhone app submitted to Appstore from a barebones iOS application in Objective C.
- Developed a React.js front end app to provide a demo page for Vjilent API, with documentation. The app communicates via AJAX to the JSON back-end API.

- Created a innovative way of scraping social network information to process with Vijilent algorithms.
- Participated in the development of the Node.js / Express / MongoDB back-end API.
- Developed the marketing webpage for Vijilent with a Ruby static page generator (Middleman).

FREELANCER, — 2014 - PRESENT
- Developed a dashboard with AngularJS front-end and Node.JS + MySQL back-end for a company in the food business including integration of payment technologies with Stripe.

- Currently developing an Open Source car workshop management app in Ruby on Rails using Test Driven Development, best practices and internationalization/localization to be used by a business in Argentina.

- Developed the Ruby on Rails REST API back-end and Ember.js front-end in Festi, an application for music festival management used by Grassroots Festivals in New York, North Carolina and Miami.

- Developed the website in Ruby on Rails for Decision Rocket, as a content management system for the client to be able to add additional content and restrict access to features depending on user subscription.

CO-FOUNDER / R&D DESIGNER / PROJECT MANAGER, ACUMINE; BAHIA BLANCA, ARGENTINA — 2008 - 2014
Acumine Argentina S.A. is the first academic electronics spin-off in Argentina. The company develops one of the world's leading Collision Avoidance Safety Systems for open pit mining. The company works together with the Australian Centre for Field Robotics in the University of Sydney, Australia.

- Designed the 4 layer PCB boards for the main signal processor, displays and small nodes forming system. The system includes 8 micro controllers, an FPGA, and GPS.

- Designed and implemented an automatized hardware and software test system to check an entire product board and generate a report to be sent to the customer verifying that all systems work properly in every box. Participated in the design of the software and firmware of all systems.

- Trained personnel in mines of three different countries and 5 different sites in the installation, operation of the system and understanding of the reporting features.

- Worked as a project manager and Hardware R&D lead with a team of 20+ people in Argentina and Australia, in two opposite time zones to develop the Acumine collision avoidance product.

ELECTRONICS TEACHER, UNIVERSIDAD NACIONAL DEL SUR; ARGENTINA — 2005-2012
Teacher of third and fourth year students of Electronics Engineering. Subjects included analog and digital electronics design, communications and antennas, amplifiers and feedback.

Education

THE IRON YARD ACADEMY (RAILS ENGINEERING / 2014)
- 12-week intensive, full-time, Back-end Engineering course focused on training in Ruby on Rails, object oriented programming, techniques, and best practices.

- Completed more than 10 projects in 12 weeks in Ruby and Ruby on Rails working in both Back-end and Front-end aspects of the problems to create functional apps with intuitive user experiences. Used AJAX to update pages without reloading and responsive design. Deployed apps in Heroku. Used continuous integration tools. Used Agile Development, pair programming, Trello and Git to collaborate, refine the products, and solve problems.

BACHELOR OF ELECTRONICS ENGINEERING (UNIVERSIDAD NACIONAL DEL SUR, ARGENTINA / 1998 - 2006)
- Bachelor specialized in design, analysis and testing of electronics, embedded systems, analog and digital applications, programming, communications, sensor networks and antennas.

- Completed a 1 year final project designing and building a close proximity system for vehicle collision avoidance. The project was later integrated in the main product of Acumine, a startup that I co-founded.

POSTGRADUATE COURSES
- Functional Analysis, Analog VLSI Design, Modeling and operation MOS transistor, Multisensor datafusion.

Open source contributions

- Exercism: fixed an installation issue of the local app related with the gem versions.

- Exercism: added exercises to the Ruby track in the app.

- Thoughtbot's Suspenders: added the ability to make all the apps "deployable by default" to Heroku by splitting the app creation process in two.

Volunteer work

- Teacher for the RailsBridge workshops in Durham and New York City (2015 - 2016).

- Setup of computer and installation of Linux Operating Systems in Kramden Institute, Durham (2014).