Gonzalo Ávila Alterach

Curriculum Vitae

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Personal data

Date of Birth: 30 de enero de 1993
Nationality: Argentine

Experience

2017 - Present **Consultant -** U&R Consultores
- Development of tailor-made systems to monitor network infrastructure
- ITmetro, Nagios XI, Centreon y Thruk system administration
- Planning and execution of migrations, upgrades and bug fixes
- Custom wizard and plugin development
- Linux System and Cisco Network administration

Main clients: Santander, PAMI, Experta Seguros, Pan American Energy Group

2017 - Present **Design and development of electromedical devices -** Bellcurvs
- Design of devices for cryo-radiofrequency, ultracavitation, cryolipolysis
- Programming of PIC18 and STM32 microcontrollers
- Schematic and printed circuit board design
- Development of tools for HMI touch screens (DGUS/SGUS)

2012 - Present **Full Stack web developer -** Freelance
Design and development of multiple administrable websites
- Backend technologies used: PHP, MySQL, MongoDB, InfluxDB, Laravel
- Frontend technologies used: HTML5, CSS3, JavaScript, VueJS

Education

2011 - 2017 **Electronic Engineering Degree · Grade Average: 89%**
Faculty of Engineering, University of Buenos Aires, Argentina

2006 - 2010 **Technical Baccalaureate with Electronic Orientation**
Graduated with Honors · Grade Average: 87%
ORT Technical School, Ciudad Autónoma de Buenos Aires, Argentina

Awards and achievements

2006 - 2010 **Selected for Argentinian Olympiad in Informatics**
Silver Medal (2007, 2010)
Bronze Medal (2008)

2010 **Selected for *International Olympiad in Informatics* (Waterloo, Canadá)**

2006 - 2010 **Selected for Computing and Mathematics contest**
Third place (2006, 2009, 2010)
Honorable mention (2007, 2008)

Languages

Spanish **Native**

English **Proficient**
First Certificate in English (2010)

Skills

- Programming languages: C/C++, PHP, Javascript, Assembly (PIC16/18, MCS51, x86), Java, Bash
- Analogic and Digital Electronics · Signal processing and communications
- GNU/Linux and Windows system administration
- Virtualization and containers: VMware (ESX), Docker, Docker Compose
- HA Clusters: Corosync, Pacemaker, DRBD
- Metrics and logs analysis: ELK Stack, Grafana, Elastiflow
- Web technologies: Apache, Nginx, MySQL, MongoDB, InfluxDB, VueJS, Laravel
- Network protocols, Cisco device configuration (IOS)
- Graphical Libraries: OpenGL · SDL · SFML
- Design software: SketchUp · Photoshop · Premiere · After Effects
- Office software: Microsoft Excel · Word · Powerpoint · Project

Published Articles and Posters

2017 **Diseño e implementación de Sistema Embebido para Reconocimiento de Palabras en Español**
CASE 2017, Book: Tecnical Forum and Abstract, Buenos Aires, Argentina.

2017 **Ataque a implementacion embebida de AES-128 aplicando Análisis de Correlación de Potencia**
CASE 2017, Book: Tecnical Forum and Abstract, Buenos Aires, Argentina.

Personal and academic projects

2017 **Escoba (Garbage control structure)**
Development of a system to optimize the recolection of urban garbage, using a network of wireless sensors installed on waste containers.

2016 **Lighweight library for Spanish speech recognition**
Design and implementation of a system that can recognize spoken words. Used platform: *EDU-CIAA*.

2014 **Microcontroller-based Battery Charger**
Circuit design and development of a battery charger using a switched-mode power supply controlled by a microcontroller. Firmware programmed using AVR-GCC toolchain.

2012 **Domotic controller**
Development of a domotic controller that can be used to control the lights of multiple rooms. Features an IR remote, a PC interface and a local interface using an alphanumeric LCD.

2010 **AlephTrack**
Design and development of a tracking device, using GSM/GPRS and GPS. Web interface created with PHP and MySQL.

2010 - Present **Open-source projects**
GitHub profile: `https://github.com/gzalo`