# TROMER SEBASTIAN
## ELECTRONICS ENGINEER


| | |
|---|---|
| Date of Birth | 24. June 1986 (Age 28) |
| Nationality | Argentinian |
| Languages | Spanish, English, German |
| Location | Mendoza. Argentina |
| Email | tromersebastian@gmail.com |
| Online CV | tromex.github.io |
| Linkedin | ar.linkedin.com/in/tromersebastian |


## ABSTRACT


For the last decade I have been studying and developing skills in different areas of Electronics Engineering. My experience on the field was achieved by working on different University projects of software and hardware development.

I also worked for 7 months as Hardware and Firmware Engineer for a company dedicated to design and manufacture meteorological stations mainly focused on Vineyards.

I can communicate fluently in English and I'm working to do it in German. Because I lived and studied in Germany for 6 months in context of a DAAD scholarship, I have given speeches in English in public and also I have been taking German courses since 5 years ago.

My goal is to work in an environment that allows me to acquire new knowledge and experience in new technologies; in innovative projects in which I can grow professionally and personally; preferably in an international environment.

My main areas of interest are: Control Systems, Internet of Things, Artificial Intelligence, Robotics.


## EXPERIENCE

### WORK EXPERIENCE

#### International border web application monitor

*Dirección Nacional de Vialidad (Universidad Tecnológica Nacional)*

Dec 2014 - Apr 2015

- Web application, for internal and public use, showing meteorological information and real-time camera photos across two international borders.
- Database synchronization with 3rd party external application of meteorological stations.

**- Technologies:** Python, Web2py, D3.js, Javascript, jQuery, git, MySQL, SQL Server 2008, HTML5, CSS3.

## Meteorological stations

*Innova Soluciones Informáticas S.R.L.*
2010 – 2011 (7 months)

- Improvements made on older hardware to reduce power consumption.
- Communication of analog sensors data through RS485 to central board.
- Communication of digitalized data to GSM/GPRS Telit modem.
- Signal conditioning for PT100 Precision Temperature Sensor.
- Project planning for development of ultrasonic anemometer.
- Requirements paperwork in order to apply for Government funds. Funds succesfully received.

**- Technologies:** Microchip PIC16F876A, MPLAB, MPASM, RS232, RS485, PT100.

## Electronic voting system

*Honorable Legislatura de Mendoza (Universidad Tecnológica Nacional)*
2007 - 2010

- Implemented voting system in C#.
- Communication though RS232 with external voting Hardware.
- Automatic generation of reports using Reporting Services.
- Display in external screens using Adobe Flash.
- 2 Years of System maintenance.

**- Technologies:** Microsoft Visual Studio, C#, Microsoft Reporting Services, Adobe flashscript, RS232.

## FAT16 implementation for SD cards in PIC16

*CEGA Electronics S.A.*
2008

- Interface with SD card using PIC MSCP module in SPI mode. Programmed in MPASM.
- SD Formatting in FAT16. Creation and writing of files. Programmed in Microchip C18.

**- Technologies:** Microchip PIC16F876A, MPLAB, MPASM, Microchip C18.

## ACADEMIC RESEARCH

**- Implementation of an energy efficient indoor localization algorithm**

**- RED SIPIA (Wireless Sensor Network)**

**- Learning tool for IEEE 802.15.4**

## OTHER PROJECTS

**- PIC Datalogger with SD card / FAT16 support**

**- Low speed Analog Datalogger through Ethernet**

**- 1.5 MHz Analog signal capturer board**

**- Low frequency DSSS generator with PIC**

**- CESSNA C172P Automatic pilot for FlightGear simulator**

**- Neuroproductivo**

## EDUCATION

### Electronics Engineer
*Facultad Regional Mendoza - Universidad Tecnológica Nacional - Argentina*
2004 - 2015

### Studienarbeit
*Technische Universität Dresden - Germany*
Sep 2009 - Feb 2010

- Project: "Implementation of an energy efficient indoor localization algorithm"
- Studienarbeit defended in English. **Note: 1.3**

### German Course (B2.1 - B2.2)
*Sociedad Goetheana de Mendoza (Goethe Institut Partner) - Argentina*
2014

### German Course (B2.1)
*Institute of Advanced Studies (TUDIAS) - TU Dresden - Germany*
Sep 2009 - Feb 2010

## PUBLICATIONS

### Enabling Low-power Localization for Mobile Sensor Nodes
*IEEE - Indoor Positioning and Indoor Navigation (IPIN) 2010*

Link: Go to IEEE Xplore Digital Library

### A Low-Power Scheme for Localization in Wireless Sensor Networks
*EUNICE'10 Proceedings of the 16th EUNICE/IFIP WG 6.6 conference on Networked services and applications: engineering, control and management / Editor: Springer-Verlag Berlin*

Link: Go to Springer Link

### A High Configurable Protocol for Indoor Localization Systems
*IEEE - 2011 International Conference on Indoor Positioning and Indoor Navigation (IPIN)*

Link: Go to IEEE Xplore Digital Library

## COMMUNICATION SKILLS

| | |
|---|---|
| Spanish | Mother tongue |
| English | Professional working proficiency |
| German | Limited working proficiency (B2) |