

# Federico Martin Roasio | Resume

Argentine and Italian Citizenship (EU Passport)  
Uspallata 676 6A (C1143ACF)  
Ciudad Autónoma de Buenos Aires, Argentina  
☎ +54 911 3168 0608  
✉ federoasio@gmail.com

## Education

2007–2013 **Electronic Engineer (MSc equivalent)**, School of Engineering, University of Buenos Aires, Argentina, GPA Equivalent – 3.92  
Eligible for Gold Medal and Honorary Diploma (Top 1%)

### Thesis

Title *Integrated Navigation Systems applied to Unmanned Aerial Vehicles*  
Supervisor PhD. Juan Ignacio Giribet  
Description The thesis was focused on the design, simulation, implementation and validation of a GPS/INS integrated navigation system applied to unmanned aerial vehicles.

## Experience

- 2015–Present **Senior Software Engineer**, SUMAPROP - ONELOOP DIGITAL AGENCY  
Sumaprop is the #1 Real Estate CRM in Argentina, currently expanding to Latin America.
- Duties:
- Technical leadership and project management using Agile Methodologies. Scrum and Kanban.
  - Fullstack web applications development. PHP, Laravel, AngularJS and jQuery, MySQL.
  - Mobile applications development for Android and iOS using Ionic.
  - Cloud infrastructure set up and maintenance in Rackspace. Cloud Servers, Load Balancers, DNS and CDN services.
- 2014–Present **Graduate Teaching Assistant**, SCHOOL OF ENGINEERING, UNIVERSITY OF BUENOS AIRES  
Graduate Teaching Assistant in Algorithms and Programming I, first course on algorithms and programming for Electrical Engineering students.
- Duties:
- Resolution of exercises on algorithms, programming in C language and good software design practices. Syllabus: C programming basics, Bitwise Operators, Structures, Dynamic Memory, Files, Recursion, Divide and Conquer, Sorting, Searching, Abstract Data Types, Lists, OOP introduction.
- 2014–Present **External Technical Consultant**, DEBMEDIA  
Debmedia is a software company focused in customer experience management.
- Duties:
- Physical web development using Estimote beacons.
  - Fullstack software developer using Java (Play! Framework), Angular JS, Amazon Web Services.
  - New products development.

2012–2015 **Guidance, Navigation and Control Researcher and Developer**, SIGNAL PROCESSING, SYSTEM IDENTIFICATION AND AUTOMATIC CONTROL THEORY LAB (GPSIC), UNIVERSITY OF BUENOS AIRES

GN&C researcher and developer for CoNAE's VEx series of suborbital rockets, under a collaboration agreement between CoNAE (Argentine Space Agency) and GPSIC-FIUBA.

Duties:

- Development of integrated navigation systems for suborbital rockets in C/C++. Real time data fusion with Kalman filters using multiple sensors, including accelerometers, gyroscopes, magnetometers and GPS.
- Development of a distributed system to collect data from more than 15 sensors in real time using concurrent programming in C under a Linux platform.

2014–2015 **Automation Engineer**, TENARIS

Automation Engineer focused in design and development of new robotic cells to automate steel pipes manufacturing industry.

Duties:

- Analysis of industrial processes and its possible enhancements by means of robotics cells.
- Design, simulation and development of robotic cells projects.
- Intensive training as a member of the Global Trainee Program of the company.

2013–2014 **Software Engineer**, ONELOOP DIGITAL AGENCY

Oneloop is a fast growing SaaS company focused on real-estate web apps.

Duties:

- Software Architect.
- Backend and Frontend Web developer.
- UI developer.

2011–2013 **Teaching assistant, research assistant and developer**, EMBEDDED SYSTEMS LAB, UNIVERSITY OF BUENOS AIRES

Teaching assistant, research assistant and microcontroller applications developer.

Duties:

- Firmware Validation for NXP Semiconductors USA unreleased products.
- Teaching assistant at Introduction to Embedded Systems, Introduction to Real Time Operative Systems, Communication Protocols for Embedded Systems and Introduction to C Programming Language.

## Language

Spanish **Mother Tongue**

English **Advanced**

*First Certificate in English – Grade A*

Deutsch **Basic**

*A1 Level*

## Skills

- \* Java, Play! Framework, Node.js, Scala, MongoDB, Firebase Authentication and Database, Facebook APIs
- \*\* Laravel, Angular JS, javascript, jQuery, MySQL, HTML5, CSS3, Embedded Linux, Agile Development
- \*\*\* C/C++, PHP, Matlab/Octave, Git, ARM Microcontrollers, RTOS,  $\LaTeX$

---

## Scholarships and Awards

- 2014 Best graduate of all Engineering Careers from the University of Buenos Aires, National Academy of Engineering, Argentina
- 2013 2nd prize to the best graduate thesis in Engineering, "Premio Pre Ingeniería 2013", Argentine Center of Engineers
- 2012-2013 Scholarship awarded by the National Agency for Promotion of Science and Technology (Becas TICs, ANPCyT).
- 2012 Scholarship awarded by Texas Instruments Inc. to assist to Tech Day São Paulo 2012.
- 2012 Certificate of Recognition from NXP Semiconductors USA, Microcontroller Business Lines.
- 2001-2006 Argentine representative of international mathematics tournaments, like the International Mathematics Tournament of the Towns, the Asian Pacific Mathematics Olympiad and Olimpiáda de Mayo. Preselected as representative of the Iberoamerican Mathematical Olympiad and the International Mathematical Olympiad. National and Regional Distinctions in the Argentine Mathematical Olympiads.

---

## Publications

- 2014 Navigation, Guidance and Control Computer Design: An application to Unmanned Aerial Vehicles. JAR 2014 (Argentina).
- 2012 Graphical User Interface Library for low cost embedded systems. ETC2012 (Costa Rica).
- 2012 Design and Implementation of an unmanned Quadcopter, CASE 2012.
- 2012 Graphical User Interfaces for Embedded Systems with Real Time Operative Systems, CASE 2012.
- 2011 Graphical User Interface for LPC17XX, Application Note for NXP Semiconductors USA.