

# Francisco (Paco) Leon

name@server.domain, 111-222-3333, [in](#)  
671 Lincoln Ave, Winnetka, IL 60093

RF Engineer with work experience in embedded RF driver implementation, hands-on RF system/block (PLL, LNA, DPA, TDC, XO) modeling and debugging, DSP algorithms, and test scripting. Extensive technical expertise in RF embedded systems, object-oriented programming, RF test automation, and SW/HW debug tools. Interested in RF firmware and DSP.

## Work Experience

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- **Innophase Inc.** **San Diego, CA**  
**Senior RF Systems Engineer** **Apr. 2017 – Present**
  - Designed and implemented RF drivers and calibration routines in C for embedded IoT and cellular SoCs.
  - Debugged and solved FW integration with HW, on digital simulation and target HW using CPU tracing tools.
  - Maintained regression-testing suite on Gitlab, implementing FW API, digital simulation, and Python scripts.
  - Uncovered root cause for simulation/measurement mismatches, using RF lab instruments and Python+Matlab models.
  - Maintained Python DUT+equipment API, adding modularity, version control, scripting, and data analysis.
- **Midtronics Inc.** **Chicago, IL**  
**Software Test Engineer** **May 2016 – Mar. 2017**
  - Created and executed test plans for embedded systems, revealing undiscovered issues in 20+ different products.
  - Designed and maintained automated testing tools and scripts in C#, reducing testing time from days to hours.
  - Managed issue tracking platform JIRA, improving project reporting and drastically reducing escaped defects.
- **Technical University of Madrid** **Madrid, Spain**  
**Radar Research Assistant** **Jul. 2013 – Jul. 2015**
  - Designed in Matlab and tested prototype of signal and data processing chains for collision-avoidance radar system.
  - Drafted and assembled mm-waves radar hardware, improving past performances and allowing new applications.
  - Advised European Border Agency Frontex in deployable technologies for EU border surveillance projects.

## Education

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- **Illinois Institute of Technology** **Chicago, IL**  
**MS, Electrical Engineering** **Aug. 2016**
  - GPA 4.0/4.0
  - Relevant work: SW/HW design of SDR on Zedboard+AD9364, FFT algorithms VHDL implementation and synthesis.
- **Technical University of Madrid** **Madrid, Spain**  
**MS, Telecommunications Engineering** **Aug. 2016**
  - GPA 8.73/10
  - Relevant work: Matlab implementation of MIMO algorithms and wireless channel estimation.
- **Technical University of Madrid** **Madrid, Spain**  
**BS, Telecommunications Engineering** **Jun. 2014**
  - GPA 7.91/10. Class top 5%.
  - Relevant work: FSK transceiver on breadboard, GSM radio interface characterization.

## Skills

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- ● ● ● ● Python, git, C, Matlab, SA, SG, PS, DMM, VNA, Loadpull, Spanish (native)
- ● ● ● ○ VHDL, gdb, LabView, SystemVue, Linux
- ● ● ○ ○ C++, SystemC
- ● ○ ○ ○ C#, German (B2)

## Publications

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- “Processing chain of a radar network for safety improvement in the usage of heavy machinery,” European Radar Conference (EuRAD), Paris 2015.
- “On the Use of Low-Cost Radar Networks for Collision Warning Systems Aboard Dumpers,” MDPI Sensors 2014.