

Luis F. Gutiérrez

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Professional Experience

2/2020 – present **Philips**

- Technical leader for a greenfield project, translating product management direction into scalable, maintainable software architecture and implementation. Technical content: DICOM, cloud deployment, evolutionary and test-driven design.
- Legacy code steward, guiding transition of market-segment leading product from desktop to cloud application.

6/2017 – 11/2019 **Independent consultant**

Providing full-stack software development expertise to a select group of clients
Example project: a big data/analytics project in the financial sector. Partnered with a small team developing a custom software solution using serverless architecture, AWS and Python backend, JavaScript/Elm frontend.

1/2016 – 8/2017 **Career break pursuing passion project**

Developed and implemented custom curriculum for gifted children with ASD. Integrated therapeutic support, traditional academics, and differentiated projects following children's interests (e.g. maker projects, programming).

11/2005 – 12/2015 **Philips**

Held multiple roles across three lifecycle phases of healthcare technology
Innovation
Identified new business development opportunities within and outside of Philips for increasing investments to explore capabilities and de-risk early stage technology. *Results: acquisition (M€) of key IP leading to multiple new products and expanded research portfolio; launch of 2 ventures in the Healthcare Incubator for projects ready to transition from research to development.*
Research

- Led team of 7 FTE (PhDs and software developers) and contributed independently across multiple projects in minimally-invasive interventions for cardiovascular and oncology applications. Medical image processing; device tracking and design; system integration. *Results: 3 projects added to product roadmaps; 8 patents as author.*
- Internal communication: conceived and wrote proposals for multiple new projects; made presentations to C-suite leadership. *Results: doubling of our department size over 3 years; 8 technical note publications.*
- External communication: *9 conference presentations, 1 peer-reviewed journal article, 3 trade show presentations.*
- Client relationship management: identification and execution of partnerships with key opinion leaders. *Results: 3 new partnerships with dedicated funding (M€).*

(continued below)

Development

- Program/systems management: Member of a 4 person management team that led the implementation of new agile work methods for a software team, in compliance with FDA regulations: new tooling for requirements management, software configuration management, testing, reporting; and new communication style (daily stand-ups, sprint demos, etc.).
- Product development team management: Project management responsibility for product release: high level project scope, goal, deliverable planning, writing code and performing code reviews; detailed definition of tasks, resource allocation, and timelines; alignment with other functions (marketing, regulatory, sales, service, support); reporting out to management.
- *Results: launched two FDA Class II products (urology and lung cancer).*

Skills

MedTech	Algorithm development for <i>electromagnetic tracking, calibration</i> of tracked devices such as ultrasound probes and endoscopes, and <i>registration</i> of multi-modality medical images.
Clinical	Research design for algorithm validation and clinical efficacy studies. Insight generation for design of novel applications that address feasible clinical workflows.
Programming	C/C++/C#, Ruby on Rails, Python, Javascript, Elm, Matlab Test Driven Development, Git, SVN, CVS, Latex, Shell scripts
Systems	Mac OS, *nix, Windows
Spoken languages	Fluent English and Spanish, basic Italian

Education

Philips INSPIRE Future Leaders Training

One of 30 High Potential employees per year from the Americas invited to attend in-depth, cross functional training in leadership, coaching, marketing, finance, & strategy; and to participate in a 10-week project reporting to a different business or function, in my case sales & marketing

Johns Hopkins University, School of Medicine, Baltimore, MD

PhD in Biomedical Engineering, November 2005

Advisor: Dr. Elliot R. McVeigh

Thesis: *X-ray Fused with MRI (XFM) for Guidance of Catheter-Based Interventions*

Additional coursework from the **School of Professional Studies in Business and**

Education: Financial Accounting; Business, Government and the World Economy

Vanderbilt University, Nashville, TN

Bachelor of Engineering, *magna cum laude*, Honors in Biomedical Engineering

Major GPA: 3.8/4.0, Overall: 3.7/4.0

Publications

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- 5 Journal Papers
 - 8 Patents
 - 20 Conference Abstracts
 - 8 Philips Technical Notes
 - 2 Appearances in Popular Press