

# Ivan Buendia Gayton

**Humanitarian Field Worker, Software Developer, Mapper, Data Collector, Manager, Leader**  
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## Overview

At the intersection of technology, humanitarianism, health, and innovation.

- Over ten years in the hardest and most neglected contexts of the world making life better for the most vulnerable.
- Expert knowledge of problem domains in low-income settings and good product management skill.
- Manager, leader who empowers people to get on with what they do well at while keeping an eye on the big picture.

## Work Experience:

### **Médecins Sans Frontières (MSF or Doctors Without Borders) 2003-2016 (still involved on Board of Directors and advisory roles)**

#### **Head of Mission and other positions**

Managed a number of MSF missions as HoM (Country Director), including Nigeria, Haiti, Libya, and South Sudan. Also worked as Project Coordinator and Logistician in several other countries. Did a stint as Humanitarian Affairs Advisor based in Amsterdam, focusing on migrants. Two years as GIS and Technological Innovation Advisor. Some highlights:

- Emergency Coordinator (Head of Mission) in Haiti during the cholera epidemic following the 2010 earthquake.
  - MSF teams treated over 110,000 patients during the time I was there, with a mortality rate in our facilities of 0.9%. Estimated mortality without treatment was 40%. We saved over 40,000 lives. This was not, of course, down to me; it was an enormous group effort, but I played a substantial and genuine part in it, and of all the things I have done in my life it is the one I am most proud of.
- Led teams into Libya during the Arab Spring uprising to support hospitals treating the wounded.
- Led a successful advocacy campaign for an environmental, rather than purely medical, response to the largest lead poisoning crisis in history (Zamfara State, Nigeria).
- Negotiated access for MSF into parts of Pakistan affected by the Baloch insurgency (essentially the only organization to successfully gain any kind of access to the affected population).
- Wrote the first project proposal to put a boat on the Mediterranean Sea to rescue migrants - in 2011. Much of that proposal was re-used in 2015, when MSF finally got into sea rescue.
- Identified, promoted, and mentored several people who went on to surpass my own accomplishments within MSF and the humanitarian field.
- Co-founded the Missing Maps project ([missingmaps.org](http://missingmaps.org)) which has created free, open map data for nearly 20 million people.
- Led a collaboration with between MSF and Google to create electronic medical records in Ebola centres ([projectbuendia.org](http://projectbuendia.org)).

### **Wave.com (Mobile Money startup) May 2016-April 2017**

#### **Africa operations**

- Preparing licenses and other prerequisites for Wave's operations in West Africa, based in Dakar, Senegal.
- Successfully negotiated a bank partnership, Central Bank authorization, Value Added Service provider license, access to USSD and SMS with major telcos.
- Left Wave amicably after a major reorganization left no appropriate role for me compatible with my family's living circumstances (Wave is no longer focusing on West African expansion).

### **Independent consultant to several humanitarian agencies (various times)**

Advisor, project manager, and software product manager

- Advising and to some extent leading an Electronic Medical Records for Emergencies development team ([projectbuendia.org](http://projectbuendia.org))
- Ongoing support to humanitarian mapping initiative that I co-founded in 2014 ([missingmaps.org](http://missingmaps.org))
  - Developing a software for crowdsourced off-line mobile image classification for humanitarian mapping that has over 11 million contributions and has helped put 10 million people on the map ([mapswipe.org](http://mapswipe.org)).
- Development of an offline server for data collection in resource-poor settings ([github.com/ivangayton/ODKAggregateOnEdison](https://github.com/ivangayton/ODKAggregateOnEdison))

- Support to mobile data collection projects in several countries for humanitarian agencies (including complete turnkey setup of OpenDataKit and Kobo Toolbox instances)
- Independent local mapping initiative in the summer of 2017 in Sierra Leone.

### **Robin B Clark Inc. Forestry Consultants, Brinkman & Associates Reforestation Ltd**

1995-2003

- Project manager from 1996 through 2003, running forestry operations with up to 75 employees in remote locations, consistently returning high gross margins while maintaining client satisfaction and company reputation.
- Consulting on an occasional basis between humanitarian missions and other work since 2003, primarily on ecological restoration projects.
- Teaching practical GIS for scientists and resource managers.

### **Skills**

- Python (2 years), Flask, Java (3 years, including some Android Java), SQL, and R. Not up to professional software engineer standards in terms of productivity, testing coverage, etc, but capable of building production systems and contributing usefully in professional teams.
- Strong Shell (bash) scripting (3 years, many mission-critical components). Particular expertise provisioning for small, low-power embedded systems (Intel Edison), and general UNIX (well, GNU/Linux) system administration.
- Networking in resource-poor environments.
- Product Management. Sufficient knowledge of software engineering to effectively lead a team of engineers and designers, and an expert knowledge of problem domains in humanitarian and low-income settings, particularly around health, geography, and data collection.
- GIS software, formerly ESRI products but now almost exclusively free software packages including QGIS, GDAL, PostGIS, etc. Have led development teams building GIS-related applications (MapSwipe). Occasionally teach a practical GIS course for scientists and humanitarian professionals.
- Design and deployment of data collection systems (OpenDataKit and Kobo Toolbox, among others).
- Security management, including in conflict and disaster areas.
- Medical program management in resource-poor settings.
- Advocacy and public speaking. Representation to media, public, and officials in "silent diplomacy" or negotiations.
- Operational ethics, including designing and delivering formal workshops to help humanitarian teams work through dilemmas in the field.
- Academic knowledge in biology, philosophy (particularly ethics), a bit of anthropology, and mathematics. No degree, but three years of university courses with very high grades, but not following a degree program (taking undergrad university classes in the aforementioned fields between humanitarian missions out of personal interest in the subject matter).

### **Tech projects**

[github.com/mapswipe/](https://github.com/mapswipe/) [mapswipe.org](https://mapswipe.org). Conceived and founded the project, managed the product, wrote some of the back-end Python code).

[projectbuendia.org](https://projectbuendia.org). Conceived and co-founded the project, project managed from MSF's side of the collaboration.

[missingmaps.org](https://missingmaps.org) Conceived of and co-founded this project, shameless plug here:

<https://www.theguardian.com/cities/2014/oct/06/missing-maps-human-genome-project-unmapped-cities>)

Provisioning scripts for various humanitarian field endeavors [setup-scripts-various](#) and [ODK Aggregate on Edison](#).

[West Africa Motorcycle Mapping](#). Independent humanitarian/medical mapping project happening in summer 2017.

### **Languages**

- English: Mother tongue, French: very fluent (near native speaker) Spanish: basic verbal communication, Arabic (North African colloquial): minimal but functional