

Ivan Buendia Gayton

Humanitarian field worker, Tech developer, Mapper, Data collector, Manager, Leader

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What I do:

I work in the vicinity of the intersection of technology, humanitarianism, health, and innovation.

- I spent over ten years in the hardest and most forgotten/neglected contexts of the world making life better for the poorest and most vulnerable, often in the context of humanitarian aid, but also in technology and business.
- I'm a nerd with a keen interest in technology and some moderate coding ability, a good understanding of the realm of the possible in technology, and pretty good product management skill.
- I'm a manager who likes empowering people to get on with what they're good at while keeping an eye on the important goals.
- I'm a strong security manager who understands that security and safety are to facilitate, not obstruct, action.
- I'm a mapper with a preference for displays that inform immediate decision-making.
- I'm a designer and implementer of effective data collection systems in resource-poor environments.
- And I'm an advocate for human-centred migration policy, a free software and open data evangelist, a voracious reader, a lifelong student, and a teacher.

Education and Skills

I have, on an occasional basis between humanitarian missions, undertaken approximately three years of full-time undirected (though credited) studies at Langara College and the University of British Columbia, both in Vancouver, Canada. Rather than taking a degree program I simply studied whatever interested me, which turned out to be biology, philosophy (mainly ethics along with a bit of formal logic), math, and some anthropology. I received very high grades in these classes, but never attempted to complete a degree as I was primarily interested in the learning and didn't feel the need to take specific classes purely to complete degree requirements.

To this day I do quite a lot of undirected study, most of it online or by reading, but also mining the knowledge of my colleagues when involved in tech projects. I read Wikipedia a lot, as well as various technical and/or scientific publications and textbooks (currently working through Peter L. Dordal's incredible free and open textbook *An Introduction to Computer Networking*).

I'm actually getting to the point where I'm a reasonably able programmer; nowhere near the caliber of an actual professional software engineer who writes code all day, but certainly able to have mutually beneficial conversations with programmers about their work, to contribute usefully, and to be fairly effective in a product management role. I'm able to build applications in Python and Java (including Android Java). Though I wouldn't pass an interview as an engineer complete with testing coverage and coding style requirements, I can write useful small standalone utilities, and contribute useful code to larger projects. My bash scripting is quite good, and I'm a strong UNIX (well, GNU/Linux) system administration, with a particular focus on small, low-power and embedded systems, as these are the things most likely to function well in very resource-poor environments. Most critically, I know enough about software development to effectively lead teams doing it, which in combination with my understanding of problem domains in resource-poor settings is pretty useful (albeit for a somewhat specialized set of problems).

I am an expert-level user and teacher of GIS software, formerly ESRI products but now almost exclusively free software packages including QGIS, GDAL, PostGIS, etc. I've led development teams building GIS-related applications (MapSwipe), and have particular expertise in design and deployment of data collection systems (OpenDataKit and Kobo Toolbox, among others).

I've participated in a number of work-related training programs, mostly around project management and security in high-risk contexts (including war and disaster zones).

Work Experience:

Wave.com May 2016-April 2017

African operations and expansion for a mobile money and remittance startup

- 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)
- Ongoing support to humanitarian mapping initiative that I co-founded in 2014 (missingmaps.org)
 - Developing a software for off-line mobile image classification for humanitarian mapping (github.com/mapswipe)
- Development of an offline server for data collection in resource-poor settings (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 ([Google Doc with info on the project](#))

Médecins Sans Frontières (MSF or Doctors Without Borders) 2003-2015 (still involved on Board of Directors and advisory role)

GIS and Technological Innovation Advisor

- Founded (with Andrew Braye of the British Red Cross and Dale Kunce of the American Red Cross) the Missing Maps project to create the necessary base data. Thus far the Missing Maps has created free, open map data for nearly 20 million people. Areas of particular focus have been the Democratic Republic of the Congo, South Sudan, Bangladesh, Sierra Leone, Liberia, Guinea, and Burundi.
- Led a collaboration with between MSF and Google to create electronic medical records in Ebola centres. Created some nice hardware and software, but arrived too late to have any impact on patient care (lesson learned).

Head of Mission

- Managed a number of MSF missions as HoM (Country Director) or Emergency Manager (capital/country level), including Nigeria, Haiti, Libya, and South Sudan. Prior to becoming HoM, worked as Project Coordinator and Logistician in Burundi, Darfur, Pakistan, Chad, and several other countries. Did a stint as Humanitarian Affairs Advisor based in Amsterdam, focusing on migrants. Some highlights:
 - Was Emergency Coordinator (capital level, leading the country response) for the MSF-Holland intervention 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%. This was not, of course, down to me; it was an enormous group effort, but I played a 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 from Tunisia during the Arab Spring uprising to support hospitals treating the wounded.
 - As HoM for MSF-Holland, 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. At the time the project didn't go forward, but much of my 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.

Robin B Clark Inc. Forestry Consultants

Occasional basis since 2001 (between humanitarian missions since 2003)

- Ecological restoration projects, generally with a focus on biodiversity, often with carbon sequestration implications.
- Teaching practical GIS use for professionals in other fields (who are not specifically in GIS positions but need/want to make high-quality maps for work) using open-source software.

Brinkman & Associates Reforestation Ltd

1995-2003

Project manager, running forestry crews in Canada with up to 75 employees in remote locations.

Tech projects

github.com/ivangayton (in particular the ODKAggregateOnEdison project is a serious piece of functioning, complex bash scripting that's used in the real world), but a few of these projects are indicative of my mixed bag of skills; some horrible messes and some pretty good

github.com/mapswipe/create-pybossa-tasks (I wrote a bunch of this code along with Benni Herfort from the GIS unit at the University of Heidelberg)

mapswipe.org

projectbuendia.org

missingmaps.org (I 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>)

Other Activities

Public speaking and advocacy: I often deliver speeches and presentations to various groups ranging from high schools and community groups to postgrad academic programs about humanitarian work, humanitarian technology, ethics, mapping, and migration policy.

Languages

English: Mother tongue

French: Very fluent; can sometimes pass for a native French Canadian. Don't enjoy writing formal documents in French (very slow at doing it, not to mention with mediocre quality), but otherwise perfectly capable of normal written conversation (work email etc) at normal speed.

Spanish: Can carry on a halfway intelligent conversation on most subjects, and once gave a

reasonably coherent live interview to a Spanish radio station from Nigeria.

Italian: Can order a beer, navigate, make and follow simple requests, and guess accurately when I'm being insulted even without seeing the hand gestures.

Arabic (North African colloquial): greetings, numbers, times, directions, simple requests and instructions. Once ran a vaccination clinic at the Chad/Libya border for a day without a translator or bilingual local staff, and it actually more or less worked.

Japanese: simple greetings and baby-talk (my daughters are half Japanese).

Citizenship/Legal Status

Dual Canada/USA citizen, with valid passports from both countries. No criminal record or other problems.

Availability:

Looking for a job! Ideally something related to tech with operational impact in low-income/vulnerable settings. Open to other meaningful work.

References:

Drew Durbin, CEO, Wave.com drew@wave.com

Ka-Ping Yee, developer and team lead at Wave, ping@wave.com

Mike White, Operational Advisor at MSF (based in New York) michaelwhite@me.com

Karline Kleijer, Head of Emergency Team, MSF-Holland karline.kleijer@amsterdam.msf.org

Pete Masters, Missing Maps coordinator at MSF-UK pete.masters@london.msf.org

Andrew Braye, GIS lead and co-founder of the Missing Maps project, British Red Cross.
abraye@redcross.org.uk

Dr. Eric Perakslis, Senior Vice President, Informatics, Takeda Pharmaceuticals International Co., and executive director of the Center for Biomedical Informatics (CBMI) at Harvard Medical School
Eric.Perakslis@takeda.com

Nigel Snoad, Product Manager at Verily (Google Life Sciences) nigelsnoad@google.com