

**TIFFANY MICHELLE TONG**

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**WORK EXPERIENCE**

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| <b>The Center for Technology and Economic Development</b>  | New York University Abu Dhabi, UAE |
| Research & Project Coordinator   | September 2014 - Present           |
| <ul style="list-style-type: none"><li>Coordinate 3-6 person teams of software developers across our UAE, Ghana, and US offices</li><li>Lead the agile development, scaling, maintenance, and testing of Android applications enabling farmers to map 5000+ farms and collect production data from 2 rural districts in central Ghana</li><li>Designed UI layouts to improve app accessibility for semi-literate users</li><li>Introduced a NodeJS web tool to efficiently validate crowdsourced spatial data (&gt; 50% time savings) and generate parameters to improve automated filtering algorithms</li><li>In-depth research areas include geospatial databases, drone/aerial imagery collection, and GPS accuracy in smartphones and their suitability for mapping projects</li></ul> |                                    |
| Research Associate   | 2012 - 2014                        |
| <ul style="list-style-type: none"><li>Conducted multi-stage user studies and trainings of various Android app prototypes in Ghana</li><li>Determined end-to-end system specifications (UI/UX design; data transfer, storage, and visualization) based on assessments of technical and resource constraints in the field</li><li>Devised and wrote an Open Data Kit-based survey to collect data on food transportation costs</li><li>Tested and provided design insights for an app using accelerometers to assess road roughness</li><li>In-depth research areas included agricultural production data collection methods in Ghana, food transportation cost inputs in Ghana, and road quality surveying techniques</li></ul>   |                                    |
| <b>Soul Communications, FZE</b>  | Dubai, UAE                         |
| Interim Chief Technology Officer   | Fall 2013                          |
| <ul style="list-style-type: none"><li>Advised a start-up mobile phone company catered to the African market by developing target specifications, evaluating global suppliers, and identifying core content for product localization</li></ul>  |                                    |
| <b>United Nations Industrial Development Organization</b>  | New York, NY                       |
| Energy Expert Intern   | Spring 2012                        |
| <ul style="list-style-type: none"><li>Drafted speeches and strategy notes for meetings with government, private sector, and civil society stakeholders participating in the UN's <i>Rio+20 Conference on Sustainable Development</i></li></ul>   |                                    |
| <b>Woodrow Wilson School of Public and International Affairs</b>   | Princeton University, NJ           |
| Science, Technology, and Environmental Policy Fellow   | 2009 - 2012                        |
| <ul style="list-style-type: none"><li>Conducted an independent field study in central Kenya to assess the adoption and impact of solar lanterns on 52 households in an electrically off-grid community</li></ul>   |                                    |
| <b>em[POWER] Energy Group, Inc.</b>  | Princeton, NJ                      |
| President of the Board of Trustees, Co-founder   | 2008 - 2011                        |
| <ul style="list-style-type: none"><li>Co-founded a 501(c)(3) non-profit dedicated to alleviating poverty in waste landfill-based slums (Karachi, Pakistan and Dhaka, Bangladesh) through sustainable income-generating activities</li></ul>  |                                    |

**EDUCATION**

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|---|-----------------|
| <b>Princeton University</b>   | Princeton, NJ   |
| Ph. D., Electrical Engineering  | June 2012       |
| <i>Thesis: Adhesion and Interfacial Failure: From Organic Light Emitting Diodes and Photovoltaic Cells to Solar Lanterns for Developing Countries</i> |                 |
| M.A., Electrical Engineering  | June 2009       |
| <b>University of California, Los Angeles</b>  | Los Angeles, CA |
| B.S., Electrical Engineering (Major); Political Science (Minor)   | May 2006        |

## SELECTED PUBLICATIONS AND PRESENTATIONS

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**T. M. Tong**, J. Asare, E.R. Rwenyagila, V. Anye, O. K. Oyewole, A. A. Fashina, W. O. Soboyejo, "A Study of Factors that Influence the Adoption of Solar Powered Lanterns in a Rural Village in Kenya" *Perspectives on Global Development and Technology* 05/2015; 14(4):448-491.

**DEV-4 Conference**; Cape Town (South Africa)

"Experiences in Designing a Mobile GIS Mapping Tool for Rural Farmers in Ghana"  
Poster, December 2013.

**T. Tong**, W. Akande, and W.O. Soboyejo. "Off-Grid Solar in the Developing World." Fundamentals of Materials for Energy and Environmental Sustainability. Eds. David S. Ginley and David Cahen. Cambridge University Press, November 2011.

**Colloquium on Education, Science, and Technology in African Development**; Princeton University  
"Scientific and Technological Initiatives for Africa"  
Invited Speaker, Moderator, April 2011.

## SKILLS

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**Language:** (Native) English; (Intermediate) French; (Beginner) Farsi, Arabic, Serbo-Croatian, Chinese

**Computer:** Java, JavaScript, NodeJS, Espresso; PostgreSQL, QGIS, Pix4D; (Basic) Matlab, (Basic) STATA; Open Data Kit; Asana; MS Office; Adobe Photoshop, Lightroom; Balsamiq, Sketch

## ADDITIONAL INFORMATION

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### International Experience:

- Worked in USA (citizen), GCC, sub-Saharan Africa
- Studied abroad in Hong Kong, Croatia, and France
- Traveled to 55+ countries

### Fellowships and Awards:

- National Science Foundation *Nanotechnology for Clean Energy* IGERT (1 year support)
- *Science, Technology and Environmental Policy* Fellowship (1 year support)
- *US-Africa Materials Institute* Fellowship to conduct research in Nigeria (2 month travel grant)
- *Technology for Developing Regions* Fellowship (1 semester support)

### Selected Outreach Activities:

- *Princeton University Global Development Network* (2009): Led 5 students in building a bamboo camel saddle for medical workers to deliver vaccines to nomadic communities in Kenya and Ethiopia using a solar-powered refrigerator
- *International Rescue Committee* (2008): Initiated and facilitated a summer science class to teach 30 high-school aged refugees the basics of solar energy and its potential societal impacts

**Hobbies:** Photography; Graphic Design; Ice Hockey; Amateur DJ