



**UNIVERSITY OF NAIROBI
COLLEGE OF BIOLOGICAL AND PHYSICAL SCIENCES
SCHOOL OF COMPUTING AND INFORMATICS**

INDUSTRIAL ATTACHMENT BRIEFS

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Registration No: P15/1494/2013
Institution Attached: Digital Matatu Project /MIT
Period of Attachment: Jan - May 2016

Objectives

1. Exposure to industrial work environments
2. Active participation in creating practical solutions using knowledge learnt
3. Build professional networks with potential employers

Activities Undertaken

1. Creating a mobile web application (which is now owned by Ma3Route) to crowd-source fares in the informal transit system in Nairobi.
2. Collecting geo-locations in different Matatu routes in Nairobi, converting the information in GTFs format and updating/mapping it to Google maps.
3. Attending MIT masters crowd sourced city class through Skype every Monday and Wednesday to learn different methods on how to crowd source information, analyze the collected data and transform it into useful information which helps in solving real-world problems.
4. Visiting MIT and Harvard to interact with their students and learn from them how to be academically successful.
5. Visiting MIT's Media lab, Senseable lab and civic data design lab to interact with different professional and learn from them more their new projects in the technology factor and get skills on how to identify a problem in the real world and use technology to solve it.

6. Meeting with companies that are involved in the Matatu sector in Nairobi eg NTSA and KBS.

Lessons worth Sharing

1. It is not about how academically bright you are, it's about your passion and ability to be able to identify a niche or a problem in the real world and come up with a reasonable solution to solve it. Just like the Digital Matatus team identified the problems of navigating through the Kenya's capital city-Nairobi and came up with a solution to map all the Nairobi's Matatu Routes to Google Map.
2. Team work and ability to adhere to deadlines/schedule is very important in every profession. I learn this after working in a group of 2 other MIT masters students who were very cooperative, open minded/flexible to new ideas and very punctual in everything they did.
3. Do not just read theory to understand it. Read it to get knowledge on how to practically develop a technology idea from that theory. I learnt this after attending a Machine learning class in Havard, where the students had an obligation to come up with a gradable application in every complex theoretical concept they learnt in class.
4. If you want to succeed in life, mingle with people who have already succeeded but don't ignore the ones who haven't succeeded yet. I learnt this after I interacted with the MIT guys. In most of the MIT classes, they invite high profile professions like people from Apple, to give success tips to the students but when they start creating applications, they invite people like matatu touts to learn more from them.
5. If you'll ever succeed in life, don't consider how hard you fall. Instead consider how fast you stand up and no matter what the challenge, don't adjust your goal but instead adjust your action steps. I learnt this after

visiting Safaricom, MIT's Media lab, Senseable lab and civic data design lab. Safaricom failed greatly in their cashless fare payment project in 2015 but that didn't stop them. They are now working with NTSA to implement a different cashless fare payment system. In the MIT labs, some of their projects failed greatly too but they never gave up, they pressed on, changed their approach to the problem and they later succeeded.

6. Self-confidence, knowing how to express yourself and building a strong professional network with different kinds of professionals, can earn you great opportunities in life. I learnt this from the Digital Matatus founders and also the MIT students whom I interacted with. The students excellently express themselves in front of different high profile professionals who later get in touch with them for job opportunities. I developed a good professional network with the Digital Matatu founders and this earned me great work recommendations from one of them, giving me a chance to currently work with EFL company to test their application prototypes.