Innocent Obi Jr

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Education

University of Michigan, School of Information — **Ann Arbor, MI**
M.S. in Information, (Data Science/Computational Social Science) — 08/2017 – 05/2019
Advisor: Kentaro Toyama
Committee Chair: Eric Gilbert
Thesis – Bitdanfo: a distributed peer-to-peer traffic information system

Georgetown University, School of Foreign Service — **Washington D.C**
B.S. in International Political Economics — 08/2012 – 05/2016

Relevant Coursework: Algorithmic Game Theory, Evolutionary Game Theory/Complex Adaptive Systems, Experimental Social Computing, Data Mining, Information Retrieval, Probability and Random Processes

Experience

Fiber — **Chicago, IL**
Founder — 05/2019 – Present
- Developing functional and effectful peer to peer networking middleware for Android mobile phones

WhereIsMyTransport — **Cape Town, SA**
Contractor — 10/2019 – 11/2019
- Worked with Software Engineering and Consumer Product teams in designs for new technical product line

comp.social.lab (Prof. Eric Gilbert) — **Ann Arbor, MI**
Student — 09/2018 – Present
- Research, design, and prototype scalable trust/reputation systems and hybrid peer-to-peer protocols
- Building *Kin*, a peer-to-peer mesh network/DTN to implement gossip protocols that support data-sharing without internet on top of ad-hoc wifi radios

SI 508/507 – Intensive Python Programming/Intermediate Programming — **Ann Arbor, MI**
Graduate Student Instructor — 09/2018 – Present
- Teach weekly sessions from Python fundamentals to more complex OOP patterns
- Lead team of Graduate Student Instructors for Winter 2018 course

Bitdanfo — **Lagos, Nigeria**
International Institute Fellow — 06/2018 – 08/2018
- Received grant from University of Michigan to design and build a distributed mobile-sensing application for traffic/transit in Lagos, Nigeria. Stack uses Java/Android, Scala/Python for data-pipelining and graph analysis.

Access Bank plc, FINCON Group — **Lagos, Nigeria**
Graduate Student Intern — 06/2018 – 08/2018
- Ran trainings on Python for Data Science. Drafted organizational data science training plan with Team lead
- Produced insights to improve and monitor the implementation of Bank's Payday loan program

Beeck Center for Social Impact and Innovation, Georgetown University — **Washington, DC**
Research Associate — 01/2014 – 09/2017
- Developed and implemented trainings for Pay for Success, impact investing, and performance-based contracting
- Contributed to scholarship on government IT innovation/procurement, impact investing and international development

Skills

Scala, Java, Kotlin, Python, C++, Javascript, Spark, Akka, Databases/Data modeling, Hadoop, Probability/Statistics, Data structures/Algorithms, Teaching, Functional Programming, Linux Networking, React, Angular, CI/CD

Projects

Clout [Kotlin]: a p2p framework and platform to support micro-interactions and macro-expressions on Android (2019): Clout is a networking middle-ware for Android that supports the creation of dynamic peer-to-peer mesh networks. It abstracts over network interfaces to support configurable multi-hop mesh topologies for content routing and file sharing.

Nigerian News Media Corpus [Scala, Python] (2019): A collection of news articles from five of Nigeria's most popular news

sites. The corpus contains processed articles from 2006 to 2018. The corpus also includes topics models, named entity recognizers, and sentiment analysis trained on the corpus. In addition to articles, the collection also include discussions threads and participants associated to each article and a tribal affiliation classifier.

Bitdanfo [Java]: a distributed traffic information system (2019): A native Android application that supports the real-time sensing and aggregation of traffic patterns and transit information. BITDANFO was built to assess the viability of using GPS-enabled mobile phones to collect structured, crowd-sourced and machine- generated traffic data.

ROVER [Javascript](2018): A Firebase-powered interactive sidebar creator for Google Chrome. Extension supports cataloguing of search sessions to allow graph and network analysis. (beta completed)

Alternating Least Squares for Collaborative Filtering[Scala](2018): Extended and optimized the Spark MLLIB ALS library to deal with new or unknown users-items in factorization algorithm. (Completed)