

# Chukwuka Chukwuocha

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## EDUCATION

### UNIVERSITY OF MANITOBA

#### MS.C IN COMPUTER SCIENCE

Program Completion Aug 2020 |

Winnipeg, Canada

Coursework: Parallel Computing, Online

Algorithms, Graph theory & Cloud

Computing

Thesis: Blockchain for Vehicular Networks

Cum. GPA: 4.0 / 4.5

### KARUNYA INSTITUTE OF TECHNOLOGY AND SCIENCES

#### B.TECH IN COMPUTER SCIENCE & ENGINEERING

Grad. June 2018 | Coimbatore, India

Coursework : Data structures, Algorithms,

Operating Systems, Computer Networks,

Discrete Math & JavaScript

Magna Cum Laude

Cum. GPA: 9.14 / 10.0

### LOGOS HIGH SCHOOL

Grad. May 2013 | Awo-Omamma,  
Nigeria

## SKILLS

### TECHNICAL SKILLS

Proficient with:

Python • JavaScript(ES6) • React/Redux  
• Node.js • Hyperledger • MySQL • Git •  
Linux • Agile(Scrum) •  $\LaTeX$  • Android  
Studio

Familiar:

Machine Learning • PHP • Go! • Docker

### SOFT SKILLS

Teamwork • Creativity • Problem Solving

## WORK EXPERIENCE

### UNIVERSITY OF MANITOBA

#### TEACHING ASSISTANT

Fall 2019-December 2019 | Parallel  
Computing

- Advised students in this course on their projects and presentations.
- Help increase efficiency of course curriculum by 30%.
- Received excellent feedback from professors and students alike

## TECHNICAL PROJECTS

### BIOMEDICAL TEXT MINING | GITHUB

Sep 2017 - March 2018 | Coimbatore, India

- Built a Text Mining Framework that recognizes various biomedical entities when connected to a database like PubMed or DrugBank using Machine learning algorithms such as CRF and naive Bayes.
- Facilitated a 45% improvement in efficient research into newer cancer drugs for the Chemistry department, Karunya Institute of Technology and Sciences.

### VANET BLOCKCHAIN | GITHUB

Jan 2020 - August 2020 | Winnipeg, Canada

- Built a trust inference model on the hyperledger using node.js & python for communication security in vehicular networks
- improved the accuracy of calculating the credibility of an event message in the network by 50% using dynamic metrics and bayesian statistics.

### SIZE-DENSITY TABLE BITCOIN MINING | GITHUB

Nov 2018 - Jan 2020 | Winnipeg, Canada

- Implemented a Size-Density table (SDT) strategy using python for selecting cryptocurrency Transactions from the mempool
- Implemented several mining algorithms such as heap sort for comparison with the SDT strategy using real-time bitcoin mempool data obtained from blockchair.com
- SDT improved on heap sort by reducing runtime from  $O(n \log n)$  to  $O(n)$  with comparable profit values

### WEATHER FORECAST | WEBSITE, GITHUB

Summer 2020 | Winnipeg, Canada

- Built a web application using react for providing an 8 day forecast for any location a user inputs
- Implemented geocoding by using the opencage API.

## AWARDS

2019	University	Michael S. Doyle Graduate Fellowship Award for Academic Excellence
2018	University	International Graduate Student Award Scholarship
2014	3 <sup>rd</sup> /20	English Literary Drama Competition, Karunya Institute of Technology
2013	1 <sup>st</sup> /160	Best graduating Student, Logos High School
2012	State Level	1 <sup>st</sup> Nigerian National Mathematics Olympiad
2012	National	Nigerian National Biology Olympiad Finalist

## PUBLICATIONS

- [1] C. Chukwuocha, T. Mathu, and K. Raimond. Design of an interactive biomedical text mining framework to recognize real-time drug entities using machine learning algorithms. *Procedia computer science*, 143:181–188, 2018.
- [2] S. Dos Santos, C. Chukwuocha, S. Kamali, and R. K. Thulasiram. An efficient miner strategy for selecting cryptocurrency transactions. In *2019 IEEE International Conference on Blockchain (Blockchain)*, pages 116–123. IEEE, 2019.