

# Okonkwo, Thomas

Software Engineer

Phone: +1 (405) 402 8242

Location: Houston, Texas

Email: [thomokc@gmail.com](mailto:thomokc@gmail.com)

Portfolio: <http://thomasokonkwo.com>

Social Media:



## EDUCATION

**Prairie View A&M University**

M.Sc Computer Science 3.90/4.00

AUG. 2021 – PRESENT

**University of Lagos, Akoka, Nigeria.**

B.Sc Electrical and Electronic Engineering 3.08/4.00

SEPT. 2013 - JAN. 2018

## SKILLS

**Streaming:** Kafka, Spark Streaming

**BigData platform:** MapR

**Backend:** Java (Spring Boot), REST, Python, Flask, Scala, SQL, Apache Beam

**Infrastructure:** Kubernetes, Docker, Jenkins, AWS, GCP

**Miscellaneous:** Algorithms, Big Data, Machine Learning, Hadoop

**Others:** Hadoop, Apache Drill, Apache Spark, Neo4j, hive, HBase

## OBJECTIVE

I am a motivated computer science student from Prairie View A&M University with a keen interest in Software Development and Machine Learning. A solution-oriented team player with a recognized aptitude for innovative thinking. I am enthusiastic, responsible, and hardworking. Having worked on different projects, it has helped me to adapt to changes quickly and made me a mature team worker. I can work well both in a team environment and as well as using my own initiative.

## SCHOOL PROJECTS

**Cerber Malware Detection— Research and machine learning Engineer**

FALL 2022 - Computer Network Security

- Worked on research for detecting Cerber Ransomware - Created a machine learning model for detecting if a packet capture (pcap) file is a Cerber Ransomware or not.
- Used the Cerber pcap files to train the model using TF-IDF methodology, where the weight of any input parameter from the pcap file will serve as terms used to measure the weight and frequency of occurrence.

**Centralised IOT-Based Monitoring for Cell Tower Sites— Backend Engineer**

FALL 2022 - Software Engineering

- I worked in a team of 5 in the design of the centralised IOT-Based monitoring for cell tower sites. I handled the design of the database using postgres and python flask for the backend. The aim of the project was to remotely monitor cell tower sites in different locations.
- I created endpoints for the CRUD operation with python flask and also an endpoint for report generation to track which cell tower fails for easy monitoring with graphical representation of the cell towers on each cell site.

**Course Advisor Management System — Backend Engineer**

FALL 2021 - Database Management

- Worked in a team of 4 to design the course advisor management system where I worked on the database design and REST API. I used Java and Spring Framework for the API, and SQL to query the mySql database. The Course advisor Management system is an application with a user interface to add, edit or remove classes for each semester.

## WORK EXPERIENCE

**Twitter Inc. — Engineering intern**

MAY 2022 – AUG 2022

- Built software applications in service of machine Learning using Apache beam: Worked with the Machine Learning Data Framework team to build data pre-processing tools for machine learning.
- Wrote beam jobs for different computation using Google Cloud Storage, using machine learning data framework
- Built libraries using Apache beam and using google dataflow and Notebooks to inspect behaviours while streaming
- Anchored the intern leadership series event with one of Twitter's executives – A global event where interns meet with Twitter's executives and share their experiences with Interns.

**Interswitch Group — Software Engineer**

JAN 2020 – JAN 2021

- Developed a credit transfer middleware for banks to increase their overall inward transfer success rate across multiple payment channels using Java Spring.
- Manipulated algorithms to align with marketing, sales and solutions, improving automation by 30%
- Built and designed a core banking application (REST) to serve as a mock for the middleware application.
- Collaborated with a team to develop and implement advanced algorithms and data pipelines that extract, classify, merge, and deliver insights and business value out of heterogeneous structured and unstructured data sets.
- Wrote spark jobs which involved copying data from different sources into MapR DB, jobs for streaming data in real-time (spark structured streaming).
- Tested software for bugs and operating speed, fixing bugs and documenting processes to increase efficiency by 21%.

## RESEARCH / VOLUNTEER EXPERIENCE

**Prairie View A&M University- Research/Graduate Assistant**

OCT 2021- Present

- Working on research for accurately and precisely locating the mobile genetic elements (mobile DNA) in the genome to generate phylogenetic trees. The machine learning classification and clustering is used to make the phylogenetic trees.

- Working on research in the civil engineering department - building a machine learning model for predicting soil moisture content in Geotechnical engineering, and building different statistical models on data obtained from different sites in Texas and analysing them.

**Oklahoma State University- Research Assistant (Summer Volunteer)**

MAY 2021- AUG 2021

- Developing a Machine Learning model for early prediction of sepsis using clinical data.
- Improving the efficiency of an already existing Machine Learning model to increase the accuracy of the model from 93% to 97%.

**Personal Research in Machine Learning**

NOV. 2017- SEPT. 2018

- Analysed stock data (from yahoo data) and built machine learning models to predict estimated output and profits using regression analysis.
- Published machine learning articles on medium to teach newbies on creating machine learning models from scratch.