

Makanjuola Ogunleye

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OBJECTIVE

To obtain a career that will allow me to take full advantage of my passion and experience in **Research, Data Science, Software Engineering and Machine Learning**

EDUCATION

Virginia Tech – Blacksburg, VA

PhD – Computer Science – **GPA 3.57/4.0**

Dec 2023

Courses: Information Storage and Retrieval, Data and Algorithm Analysis, Machine Learning, NLP

Austin Peay State University – Clarksville, TN

May 2019

Master of Science in Computer Science – **GPA 3.75/4.0**

President - National Society of Leadership and Success, National Society of Black Engineers (NSBE), Computer Science Research Group, Tennessee Academy of Science,

University of Lagos – Lagos, Nigeria

December 2016

Bachelor of Science – Mathematics and Computer Science, Nov 2016 (GPA **3.51/4.0**)

Google Developers Group, Google Android Club, Junior Chambers International (JCI)

SKILLS

- **Programming** (Python, C++, R, SAS, TensorFlow, Java, JavaScript, CSS, HTML, React, MySql)
- Data Analytics and Visualization (**SQL**, SAS Visualization, Apache Spark, Pandas, Numpy, Matplotlib)
- **Machine Learning** (NLP, TensorFlow, Keras, AI, Reinforcement Learning, Text mining, Information Retrieval)
- **Cloud and collab tools:** (Git, Trello, Docker, Kubernetes, Continuous Integration, AWS)

RELEVANT ACADEMIC COURSES

- Software Development Project Management, Concurrent Programming, Machine Learning, Python for Data Science, Algorithms and Data Structures, Computer Architecture, Operating systems, SAS Programming, Linear Algebra, Computational Statistics, Generalized Linear Models, Regression Analysis, Data Mining, Calculus, Modern data base design

PROJECTS AND HACKATHONS

Emergent Multi-Agent Communication (PhD Thesis)

August 2020 - Present

- Modeling the emergence of communication in a multi-agent, multi-modal and 3d Environments
- Adopting CLIP and spatio-temporal language grounding transformers in modeling emergent communication
- Investigating model's channel capacity upper bound for representing compositional structure

Virginia Tech Library Information Retrieval System

August 2020

- Part of front-end team responsible for building a state-of-the-art information retrieval and analysis system
- Improved the UI and extends its capabilities to search at least 30K Electronic thesis and dissertation, 5B tweets and (3) millions of webpages
- Used the following tools: Elasticsearch, Reactive search, CSS, Docker, Flask, and Python

Google NSBE45 Hackathon

March 2019

- Part of the backend team that built a web App that provides safety information for a given location keyword
- Implemented Google geocoding API to extract coordinates from a given address
- Wrote a program that extracts criminal records from open FBI API

Airbnb Machine Learning Challenge

March 2019

- Built Machine Learning models to predict if a listing would be booked for a future date
- Selected important features using Sklearn libraries and compared several models based on accuracy score.

Graduate Research Project:

- **Python** – Identifying hate speech using Machine Learning (Capstone Project) January 2019
- **Python, NLP** - "Using Python Programming for Corpus Linguistic and Sentiment Analysis" August 2018
- **Python** - "[Predicting Big Brother Nigeria winner using Sentiment analysis](#)" April 2018

Software Engineering Projects

- **Java, UI design** - "Connected with Google Search API in the Design and Implementation of a Plagiarism checker Application." June 2014

CONFERENCES AND PRESENTATIONS

- **Presented** at the 2nd International Conference of Digital Cultures and Scholarship (2 times) – Lagos

- **Presented** at Computer Science Research Seminars, Austin Peay State University – Clarksville 5/2018
- **Presented** at the 1st Lagos Summer School in Digital Humanities – Lagos, Nigeria 7/2017
- Attended KPMG Cyber Security Conference – Lagos 3/2017

AWARDS AND HONORS

- Facilitator Award, Volkswagen Foundation 10/2018
- Award of Outstanding Leadership, Mathematics Student Association 9/2016
- Scholars Endowment Award, University of Lagos (Twice) 2014, 2015
- Award of Excellence, Rehoboth Dream Solid Foundation (Twice) 2014, 2016

RELEVANT EXPERIENCE

Northwestern Mutual – Milwaukee, WI

Summer 2021

Application Support Engineer Intern (Data Analytics)

- Performed data analysis on client's data and provided improvement to the support engineering technology to facilitate customer success
- Wrote complex SQL queries that solved frequent support engineering problems

Virginia Tech – Blacksburg, VA

August 2020 – Present

Teaching Assistant

- Researching on Emergent Multi-Agent communication with focus on Explainability, Language Grounding and Improved agent's capacity
- Part of the team responsible for building a state-of-the-art information search, retrieval and analysis system using Elastic search
- Teaching Assistant for the following classes (Numerical Analysis, Information Storage and Retrieval, Multimedia and Hypertext capstone project course)

Austin Peay State University – Clarksville, TN

August 2017 – August 2019

Graduate Teaching Assistant

- Conducted data analysis on a large collection of APSU work order data
- Project: Application of Machine Learning in Predicting over-crowdedness in a campus gym
- Teaching Assistant for: SAS Programming, Introductory Statistics and Probability

Digital Humanities Research Unit, University of Lagos – Lagos, Nigeria

August 2016 – November 2018

Software Engineer - Research

- Part of the technology team responsible for building a Corpus of 1-million-word token of New Media Discourse in English
- Created Visual Charts and Digital Maps for the project: "Retelling the Story of Okonkwo: in Chinua Achebe's Things Fall Apart novel"
- Contributed to several research projects sponsored by Alexander Von Humboldt Foundation, Germany

Research Intern – Lagos, Nigeria

Summer 2016

- Used R programming to automatically extract tweets from Twitter through Twitter's REST and Streaming APIs
- Performed keyword in Context Analysis(KWIC) on popular Chinua Achebe's Novel "Things fall apart"
- Used Python and HTTrack to Crawl and extract text from a news portal

KPMG – Lagos, Nigeria

Summer 2015

Data Analyst Intern

- Proposed KPMG Campus Ambassadors Program to Senior Associates of the firm
- Used data analytics skills to accurately and quickly detect risks during a client Audit Engagement
- Attended meetings with senior managers, produced and submitted Audit Reports
- Worked in a team of four to check for risks and compliances in the "order to cash" process of Dangote Group

LEADERSHIP EXPERIENCE

National Society of Leadership and Success, APSU– Clarksville, TN

February 2018 – May 2019

President

- Started the largest United States leadership honors society at Austin Peay State University
- Formed executive team to achieve organization's goal
- Led team's effort that gave rise to the induction of 500 students into the society
- Attended an all-expense paid Leadership Retreat at Hoboken, New Jersey

Mathematics Students Association, University of Lagos – Lagos, Nig.

September 2015 – October 2016

President

- Worked with executive team members to organize academic seminars that provided opportunities for about 3 students to receive scholarship to study in the US
- Initiated the department's first debate competition

First Class Foundation, University of Lagos – Lagos, Nig.

January 2015 – December 2015

President

- Oversaw the Foundation's outreach to over 2000 freshmen
- Conducted tutorials, academic seminars and mentorship forums to stabilize freshmen in the university - more than 200 students became the best in their levels