

# Bukola “Grace” Omotoso

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## Summary

A research minded Computer Science Graduate with experience in Software Engineering and QA Testing, Object Oriented Programming and Agile Development, Database Management and Data Analysis, Information Security and IT Audit. Skilled in the use of software frameworks, version control and project management tools to collaborate with Project Stakeholders. Has research interest in High Performance Computing, Natural Language Processing, Computer Vision and Deep Learning.

## Education

<b>Middle Tennessee State University - Murfreesboro, TN</b>   Master of Science in Computer Science, 2020	3.89/4.00
<b>University of Lagos - Lagos, Nigeria</b>   Master of Information Technology (MIT), 2014	3.73/4.00
<b>University of Abeokuta - Abeokuta, Nigeria</b>   Bachelor of Science in Computer Science, 2008	3.43/4.00

## Experience

**ETSY SUMMER OF VISION (ESV)** | 07/2020 – till date

**ETSY Inc - Remote**

Etsy Summer of Vision (ESV) is a 12-week (07/21/20 - 10/09/20) fellowship program designed to pair up to students with mentors from Etsy's Machine Learning teams to explore computer vision applications for the future of Etsy's shopping experience. My research Team has been working on how to identify visually similar products on Etsy Website. The objective of the research is to allow customers view the variety of items on Etsy Website by reducing the display of visually similar items, therefore increasing seller's presence, and giving customers more buying options.

- Image Processing techniques to identify perfectly identical items (pixel by pixel duplication): Use of Mean Square Error (MSE), Structural Similarity Index Metric (SSIM), Hashing and Random Patching.
- Image Processing techniques to identify similar items with different colors: Use of techniques such as Canny Edge Detection, Image Thresholding, Image Displacement, Kullback – Leibler (KL) Divergence.

**GRADUATE TEACHING ASSISTANT** | 08/2018 to 05/2020

**Middle Tennessee State University - Murfreesboro, TN**

Assisted Computer Science Professors in lab sessions for their classes. Helped Undergrads understand the concept taught in class by helping with lab assignments, holding office hours, and providing mentorship to help students become more passionate about programming. Extensively used Linux OS for managing files and compiling high level languages.

- Lab Assistant for Computer Science I (Python Programming)
- Lab Assistant for Computer Science II (C++ Programming)

**SOFTWARE DEVELOPER INTERN** | 06/2019 to 05/2020

**HCA Healthcare - Nashville, TN**

Undergoing internship was optionally part of my master's program curriculum and I chose to go for an internship so I could get more practical experience. I developed and maintained a self-service portal for HCA'S application teams to create Single Sign On (SSO) connections to PingFederate using ASP.NET MVC5, SQL Server and Teams Foundation Server (TFS). This helps application developers establish a secure connection between PingFederate API and their applications. It was supposed to be a summer internship, but I was kept on the job till the end of my master's program because I exceeded expectations.

- Expanded the app's feature-set, implementing certificate management, user change auditing, automated notification system for expiring certificates using Hangfire Cron Job.
- SAML and OAuthClient connection creation and maintenance

- Involved in sprint planning, backlog prioritization and other agile development practices within the department using Teams Foundation Server (TFS)
- Rebranded the user interface of the SSO app using company branding specifications. More like a front end development using HTML, CSS and Bootstrap.
- Integrated SQL Server into the SSO app using Entity Framework and wrote code for some CRUD operations from within the app using best practices like State Repository.
- Documented code and created a user manual/starter kit to onboard new developers. Documentation includes TFS, the SSO portal, Git, PingFederate and Database.
- Attended some training that was relevant to my responsibilities and interests (Secure Web Coding, Microsoft Azure Fundamentals and PowerBI).

## **SOFTWARE DEVELOPER | 08/2015 to 01/2017**

### **Andela - Yaba, Lagos Nigeria**

Andela prides itself in selecting top 1% of tech talent, I scaled through the rigorous hiring process. Started as a Junior Developer and grew to be a World Class Software Developer. Learnt agile development, unit testing, version control with GitHub, and mobile development using Java/Android technology stack and worked remotely with a standard software engineering team based in the United States. I learnt best practices such as writing clean code using the DRY principle and some design patterns.

#### **First Client Engagement (One University Network, Oakland, CA)**

- Contributed to the development of an android education app that allows students to take classes, quizzes and final exams.
- Involved in bug fixes, code review, daily stand-ups and sprint planning
- Documented test cases for the app's functionality
- Involved in QA Testing - (Functionality Test and Regression Test)

#### **Second Client Engagement (Quiver Media, Panama City, FL)**

- Contributed to the development of a mobile messaging app that is on play store (Quiver Messenger) using test driven, behaviorally driven and agile development.
- Involved in code review, bug fixes, agile development, backlog management, daily stand-ups and sprint planning
- Worked closely with UI/UX Designers and Software Testers transforming specifications into a functioning module.
- Mentored junior developers in preparation for Client engagement
- Peer code review

## **IT AUDIT AND INFORMATION SECURITY CONSULTANT | 07/2012 to 07/2015**

### **Rhythex Consulting - Ilupeju, Lagos Nigeria**

Worked on many client projects in telecommunications, banking and insurance industries. Used Data analytics tools such as ACL, AX Core, Informatica ETL and Oracle to analyze clients' data and presented findings to Stakeholders. Involved in revenue assurance and fraud detection for some big banks in the country. There was a lot of cost savings through my IT audit engagements with clients. After working for two years with track record of excellence, exceeding expectations and providing client satisfaction, I got promoted to an IT Audit Manager

#### **IT Audit Consultant/Data Analyst**

- Implemented Audit Automation for revenue assurance and fraud detection.
- Identified loopholes in ERPs and recommended risk aversion measures and cost savings.
- Data migration audit, verifying data completeness by making comparisons between the old and new platforms.
- Used data analysis techniques to prepare cost-benefit, ROI and risk assessment reports.
- Evaluated internal controls, identified gaps and developed corrective actions.
- Maintained good and open communication with Project Owners and Auditees.
- Documented audit processes, preparing a final report and discussing findings with Auditees
- Wrote C# scripts and integrated it into ACL to enhance automation

#### **IT Audit Manager**

- **Project Team Lead:** Led audit and data analytics projects, managing various KPIs and ensuring client satisfaction, meeting with different Stakeholders to discuss project progress. Managing deadlines and proactively discussing any constraints that may affect the deadline with Product Owners. Trained Audit Staff and supervised various audits.

- **CISA Facilitator:** Involved in teaching some modules 1, 3 and 4 of the Certified Information Systems Auditor (CISA) certification curriculum, preparing IT Audit Professionals for the exam.
- **Data Analytics Tools Facilitator:** Trained IT Audit Professionals on the use of Computer Assisted Audit Techniques (CAAT) tools, majorly SQL & ACL, using real life scenarios to explain audit automation. Also involved in onsite personnel training programs.

**IT ADMINISTRATOR** | 08/2009 to 12/2011

**INVESTMENT BITC - Lafia, Nassarawa**

- Assigned and coordinated IT training programs and updated the training manual for IT instructors.
- Ensured that Internet communication, LANs and computer systems in the Company are functional.
- Security compliance (Antivirus updates, disabling USB port, and ensuring change management is strictly followed).
- Undertook planned and regular maintenance of information technology infrastructures

## Certifications

- Coursera Deep Learning Specialization – In Progress
- Cobit 2019 Foundation – May 2020
- Microsoft Certified Azure Fundamentals – Dec 2019
- Certified Information Security Manager (CISM) – Feb 2018
- Certified Information Systems Auditor (CISA) – Feb 2017
- Oracle Certified Associate (OCA) **Retired** – July 2009

## Links

- LinkedIn: <https://www.linkedin.com/in/bukola-grace-omotoso-18003345/>
- GitHub: <https://github.com/andela-bomotoso>

## CAMPUS ACTIVITIES

### FACEBOOK DATA CHALLENGE

This was the first Data Challenge organized by Facebook. During this 2-day competition, students from various Universities from the East Coast were placed in a small team, paired with a Facebook mentor, and asked to tackle a simple data challenge related to “Zuck” and his new business in San Francisco using the data set provided to us. I had real world data science experience working tableau, ipython and most importantly being under the tutelage of a Facebook Data Science Mentor.

### MTSU HACKMT 2019

Took part in a Hackathon organized by the Computer Science department of MTSU. I joined a Data Science/Data Analysis team that helped to provide insight into the massive Second Harvest Data. My Team came first in the Hackathon. We used tableau and jupyter iphyton to analyze and visualize Second Harvest Food Bank data.

### MTSU HACKMT 2020

Took part in another Hackathon organized by the Computer Science department of MTSU. I joined a team that helped to solve food wastage problems and make food available to the needy. My team built a web application that people can use to donate food and also those in need of food can use to search for free food around them. We are looking at taking the project beyond the Hackathon and developing a mobile version of the app. My Team came first in the Hackathon.

## INTERESTS

Traveling, reading, singing.