WATSON AGBRAMU

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Portfolio LinkedIn Github

SKILLS

Programming: Python, JavaScript (ES6), TypeScript, MATLAB.

Web Development: React JS, Redux, Express JS, Node JS, RESTful API, HTML, CSS, SCSS, Bootstrap, Materialize, Semantic UI, jQuery.

Testing Frameworks: Jest, Enzyme.

Data Analysis: NumPy, Pandas, Scikit-learn, Matplotlib, TensorFlow, Keras.

Database: MySQL, PostgreSQL, MongoDB, FireStore.

Others: Git, Linux, Heroku, Agile (Scrum).

EDUCATION

University of Waterloo, Waterloo, ON

December 2020

Master of Engineering in Electrical and Computer Engineering, **Distinction**

Certificate in Business and Entrepreneurship (Conrad School of Business)

Federal University of Oye-Ekiti, Oye-Ekiti, Ekiti State (FUOYE)

January 2018

Bachelor of Electrical and Electronics Engineering, First Class Honours

RELEVANT PROJECTS

Crown-Enterprise Application

- Created an e-commerce application to handle online retail using Express JS, React JS, Redux, SCSS, Firebase, Stripe, etc.
- Ensured data security by integrating **FIREBASE** to handle authentication.
- Integrated FIRESTORE to cater for data storage while REDUX handled state management.
- Integrated STRIPE API to handle payment on both backend and frontend.
- Ensured URL redirect from HTTP to HTTPS using EXPRESS-SSLIFY, and ensured app was PWA compliant.

Mailer Application

- Created an application to get <u>customer feedback</u> using **Express JS**, **React JS**, **Redux**, **Redux Form**, **CSS**, **Mongoose**, **MongoDB** etc.
- Ensured data security using **PASSPORT JS** via **Google Oauth** strategy for authentication.
- Created **EXPRESS** routes to handle surveys, payments, emails and stored the data on **MONGO DB**.
- Integrated STRIPE API and SENDGRID API to handle payment and send emails respectively.

Portfolio Application

• Created a <u>personal portfolio website</u> showcasing my skills using React JS, Redux, CSS, Bootstrap, Particles JS etc. and hosted it on GitHub pages.

Color-Picker Application

• Created a fun color picker project hosted on github pages to help with picking the right background when designing websites using React JS and SCSS.

EXPERIENCE

Master's Degree

September 2019 - December 2020

University of Waterloo, Waterloo, Ontario, Canada

Data & Knowledge Modelling & Analysis

• Created a dog breed classification model with **Python** using **transfer learning** on fine-tuned **Inception-Resnet-V2** and **Efficientnet-80** architectures and obtained an accuracy of **92.18%** and **85.38%** respectively on 120 dog breeds which surpassed existing literatures.

Image Processing and Visual Communications

- Created and proposed new annotations for a subset of INRIA person dataset using **LabelImg Software** to improve detection performance by over **20%**.
- Performed Data Augmentation using **Python** and trained **Faster RCNN** using **Inception-Resnet-V2** and **Resnet-50** as backbone architecture on pedestrian images obtaining an average performance of **89.6%** and **86.0%** respectively.

Project Management

• Developed part of the Teachers without Frontiers (TWF) Project deliverables by employing project management methodologies on the Science Curriculum for Grade VI and Grade VII to improve education access in remote areas of Pakistan by over 30%.

Graduate Assistant

May 2018 - **March** 2019

- University of Ilorin, Ilorin, Kwara State, Nigeria
- Led discussion, tutorials, and laboratory sessions for 200, 300 and 400 level students.
- Evaluated and graded laboratory exams and assignments in compliance to the provided marking scheme.
- Secretary at final Year Defence accessed students and graded them based on performance.
- Took meeting minutes at departmental meetings by using MS Word to account for all issues discussed.

Student Intern

April 2016 - **October** 2016

Alcon Nigeria Limited, Warri, Delta State, Nigeria,

Shell Workshop, Warri, Delta State, Nigeria.

- Restored power to Obotobo-1 & 2 communities of Ogulagha Kingdom after a power outage of over 2 weeks by suggesting a series-parallel battery connection to the Chief Engineers to aid boost the current required to drive the CAT engine using knowledge of electronics.
- Calibrated Pressure and Temperature gauges to be used at the Forcados Yokri Integrated Project (FYIP) using a dead weight tester and dry block calibrator.
- Troubleshooted and repaired CAT generators using the CAT tester and troubleshooting guide.

LEADERSHIP AND AWARDS

- Best Overall Graduating Student for 2016/2017 academic session (Federal University Oye-Ekiti Prize).
- Departmental and Overall Best Graduating Student in the Faculty of Engineering (2016/2017 academic session).
- Faculty of Engineering Best Student 2016/2017 academic session (J.A Soremekun Memorial Prize).

- Served as representative at a NUESA event for the Faculty of Engineering (*FUOYE*) to give a lecture on safety practices in the workplace based on my leadership potential, communication skills and academic success.
- Represented the Faculty of Engineering (*FUOYE*) at a project exhibition at Afe Babalola University, Ado-Ekiti based on my academic performance and timely completion of my final year project.
- Represented the Faculty of Engineering (*FUOYE*) at an *Intel Galileo* event at Elizade University, Akure based on academic performance, leadership potentials and communication skills.

CERTIFICATIONS

- Coursera: Python Data Structures, Using Python to Access Web Data, IBM Exploratory data analysis for Machine Learning.
- Data Camp: Data Manipulation with pandas, Python Data Science Toolbox (Part 1 & 2), Introduction to Data Visualization with Matplotlib.
- LinkedIn Learning: Applied Machine Learning: Foundations, React.js Essential Training, React.js: Building an Interface.
- Novelle Innovation Center Basic First AID/CPR Training Course.
- British International Safety Organization [United Kingdom SHE Organization] (HSE Levels 1, 2, & 3).
- **Department of Petroleum Resources** Environmental Impact Assessment.
- National Youth Service Corps (NYSC) discharge certificate, Nigeria.

VOLUNTEER ACTIVITIES

Environmental Protection and Sanitation Group (EPSG)

October 2019 - **March** 2020

National Youth Service Corps (NYSC) Ilorin-South, Nigeria.

- **Provost** (Environmental Protection and Sanitation Group).
- Selected as Provost to represent the members based on my leadership skills.
- Worked closely with the President and Group Supervisor to ensure punctuality of all members to meetings, collected fine from defaulters and remitted to the treasurer.

Redeemed Christian Fellowship (Final Year Students 2017 set)

May 2017 - **October** 2017

Federal University Oye-Ekiti, Ikole-Ekiti, Ekiti-State Nigeria.

- **President** (Redeemed Christian Fellowship Final year Students 2017 set).
- Selected as President to represent the members based on my leadership skills.
- Managed team members and ensured all opinions were strategically evaluated and considered.

Federal University Oye-Ekiti (Final Year Students 2017 set)

May 2017 - **October** 2017

Federal University Oye-Ekiti, Ikole-Ekiti, Ekiti-State Nigeria.

- Treasurer (Federal University Oye-Ekiti Final year Students 2017 set).
- Selected by the Final Year students to represent as treasurer based on my accountability and transparency.
- Managed and accounted for funds received as payment by creating an expense reports sheet using MS Excel.