AKASUKPE AGHOGHOMENA

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EDUCATION

Masters of Science, Computer Science (Thesis Based)   January 2025 - Present
Ontario Tech University   *Oshawa, ON, Canada*

- **Area of Specialization:** Networking and IT Security
- **Research Focus:** Cyber Security, Artificial Intelligence, Machine Learning and Deep Learning
- **Supervisor(s):** Professor Miguel Vargas Martin(Link Here) and Dr Li Yang(Link Here).

Bachelor of Science, Computer Science   September 2019 - June 2023
Babcock University   *Ogun state, Nigeria*

- **Relevant Coursework:** Algorithms and Data Structures, Artificial Intelligence and Applications, Machine Learning with Python, Database System Design-Implementation and Management, Linux System Administration, Modeling and Simulations, Information Theory and Data Communication Systems, Computer Organization and Architecture, Statistical Methods I/II, Numerical Methods And Analysis I/II, Discrete Mathematics, Programming in C/C++.
- **CGPA:** 4.88 / 5.0 (Summa Cum Laude).
- **Class Rank:** Top 1%.

EXPERIENCE

C# Developer - Full time - Hybrid   Sep 2023 - Nov 2024
Cavista Technologies Limited   **Lagos State, Nigeria**

- Analyzed and translated Health Care Claim Professional (837) Companion Guides to code added to the parsing engine in order to increase support for more segments of patient claim data files received using EdiWeave and various custom models and parsers.
- Performed extensive TestCase mocking and testing using NSubstitute, Fluent Assertions and Xunit.
- Optimized SQL queries written using Entity Framework and extended with Language Integrated Query (Linq) syntax by adding AsNoTracking and performing query analysis using LINQPad.
- Collaborated with Quality Assurance (QA) Engineers to conduct post-deployment ticket testing across development, staging and production environments utilizing tools like Kibana to analyze logs in each unique environment.
- Implemented techniques such as Lazy Caching and Pseudo-random string generation to handle race conditions, leading to an 80% improvement in processes.
- Contributed to backlog refinement, prioritization, and estimation on various Jira Software, story point estimation and other product issues, optimizing the team's ability to deliver value incrementally.

Full-stack developer - Full time - Remote   Aug 2021 - Aug 2023
Azul Nigeria   **Lagos State, Nigeria**

- Worked on setting up Eloquent models to define and refine the structure of the Laravel application's backend data.
- Developed PHP scripts to handle complex data types and convert them into JSON for API responses.
- Integrated and utilized background processing tools to manage asynchronous tasks, such as sending emails and processing background jobs, improving application responsiveness.
- Implemented new frontend features using TypeScript, Next.js, React.js, and Tailwind CSS, focusing on enhancing user experience and engagement.
- Designed and implemented RESTful APIs using Laravel and PHP to facilitate seamless data exchange between the frontend and backend systems.
- Optimized database queries, managed migration and implemented indexing using the Facade library and MySQL to enhance the performance and scalability of the application.
- Utilized Composer for dependency management, ensuring that all PHP libraries and packages were up-to-date and

compatible.

- Implemented user authentication and authorization using PHP and JWT (JSON Web Tokens) to secure the applications content management system and manage user roles.

- Assisted in identifying and implementing SEO strategies, such as meta tags optimization and content improvements, to increase website visibility and organic traffic.

Front-end developer - Internship - Hybrid   **June 2021 - July 2021**
Asset and Resource Management Holding Company (ARM)   **Lagos State, Nigeria**

- Utilized Git version control and GitHub software to track, store and control the entire application's Software Development Life Cycle.

- Reduced page styling time by 40%, by utilizing Tailwind CSS in the styling of components and major pages across the lifestyle web-application being worked on.

- Spearheaded the design and development of multiple web pages while adhering to the user interface specifications and brand guidelines.

- Collaborated with cross-functional teams and subject matter experts to ensure that the web-applications core functionality aligned with the product strategy, company goals and objectives.

- Reduced page load time by 50% by using Webpack and module bundling strategies to reduce the generated JavaScript files and general page speed.

Software developer - Internship - Hybrid   **March 2021 - May 2021**
Azul Nigeria   **Lagos State, Nigeria**

- Participated in the development of a mobile-optimized experience, working on frontend tasks and ensuring compatibility with various devices and screen sizes using Syntactically Awesome Style Sheets (SASS).

- Assisted in backend development tasks for the application using Django, including working on models, views, serializers, and APIs under the guidance of senior developers.

- Supported the integration of Celery for handling asynchronous and periodic tasks, gaining exposure to backend infrastructure and performance optimization.

PERSONAL & ACADEMIC PROJECTS

- **Adaptive Personalized E-commerce Recommender System:** A full-stack e-commerce web application built with Django rest framework and React Javascript, featuring a content based recommendation system. The recommendation system uses product information to recommend similar products to a user. View Writeup
  -> **Link**: Github URL
  -> **Tools**: React.js | Django.js | PostgreSQL | JavaScript | SCSS | Pickle | Scikit-Learn | Pandas | Numpy

- **Chestnut school management system:** A futuristic school (student, staff, results, promotion) management system deployed on AWS and built to support over 100,000 students and faculty across various classes.
  -> **Link**: https://chestnutschool.com/
  -> **Tools**: Next.js | React Query | React.js | Tailwind CSS | Zustand | Vercel | Node.js | Express.js | Docker | Git

- **Breast Cancer Risk and Susceptibility Prediction using Machine Learning:** An undergraduate research project conducted that utilized open source data from Kaggle to analyze and classification models to predict breast cancer susceptibility.
  -> **Link**: View Writeup
  -> **Tools**: Scikit-Learn | Pandas | Numpy | Jupyter

SKILLS

Languages:
- **PHP**, **SQL**, **Typescript**, **JavaScript**, **C#**, **Python**, **Bash**

Tools:
- **.NET**, **Git**, **Wordpress**, **Mongo db**, **NLog**, **Kibana**, **CI/CD**, **Docker**, **Metabase**, **Postman**, **ReSharper**, **Figma**, **Elastic Search**, **Open Search**, **MySQL**, **PostgreSQL**, **Scikit-Learn**

Techniques:

- **Microservices**, **Database Design**, **Unit Testing, Serverless**, User Interface Design, Scripting

Frameworks:

- **Selenium, Selenium Grid, Django Rest Framework**, **SASS**, **Django**, **Next.js**, **React.js**, **Node.js**, **ASP.NET MVC**, **ASP.NET Core**, XUnit, Matplotlib, NLTK, Cosine Similarity, TF-IDF Vectorizer, Pickle, Ollama, LangChain, Tensorflow, Keras

CERTIFICATIONS

- [Foundational C# with Microsoft](#) - (October 2023)
- [Certified in Cyber Security (ISC2)](#) - (March 2024)
- [Home Health - Axxess](#) - (March 2024)
- [Home Care - Axxess](#) - (March 2024)
- [Hospice Clinical - Axxess](#) - (March 2024)
- [Palliative Care - Axxess](#) - (January 2024)
- [React - Hackerrank](#) - (February 2023)
- [Javascript - Hackerrank](#) - (July 2022)
- [CSS - Hackerrank](#) - (October 2021)
- [Certified Secure Computer User (CSCU) - EC-Council University](#) - (July 2021)
  Credential ID ECC3295401867
- [Python - Hackerrank](#) - (May 2021)

ARTICLES

- **Content-Based filtering recommendation system using Django, Scikit-learn and Django Rest Framework:** An article covering how to implement a full-stack scalable recommendation system in an e-commerce environment using Django and Django Rest Framework
  -> **Date Posted:** April 30th 2024
  -> **Link**: https://www.linkedin.com/pulse/content-based-filtering-recommendation-system-using-django-akasukpe-pzpcf
  -> **Tools**: Django | Django Rest Framework | Pickle | Scikit-Learn | Pandas | Numpy

- **Role-Based Access-Control using Next.js Middlewares:** An article covering a cleaner way to handle user authentication and authorization using the Next.js Framework.
  -> **Date Posted:** May 5th 2024
  -> **Link**: https://www.linkedin.com/pulse/role-based-access-control-using-nextjs-middlewares-akasukpe-kkt1f
  -> **Tools**: Next.js | React.js | TypeScript | Tailwind CSS | Npm | Git

HONORS & AWARDS

Engineer (Dr.) Akin Alade (PhD Networking and Telecommunications) Family's Award   **July 2023**

Issued by Engineer (Dr.) Akin Alade

-> Best graduating student in the department of Computer Science. Awarded a prize of ₦25,000($32.07) Exchange Rate[$1=₦779.55].

Folajimi Daodu's Award   **July 2023**

Issued by Folajimi Daodu Foundation

-> Best graduating student in the department of Computer Science. Awarded a prize of ₦50,000($64.14) Exchange Rate[$1=₦779.55].

Labulo Prize: Prof Boidun and Prof (MRS.) Elizabeth Disu   **July 2023**

Issued by Prof Boidun and Prof (MRS.) Elizabeth Disu

-> Best graduating student in the department of Computer Science. Awarded a prize of ₦100,000($128.14) Exchange Rate[$1=₦779.55].

Late Chief Oluwafunminiyi Olatunde Ajao Prize   **July 2023**

Issued by Babcock University

-> Best graduating student in the department of Computer Science. Awarded a prize of ₦50,000($64.14) Exchange Rate[$1=₦779.55].

Mouka Award For Excellence   **July 2023**

Issued by Mouka Foam

-> For the best graduating student in the School of Computing and Engineering Sciences. Awarded a prize of ₦100,000($128.14) Exchange Rate[$1=₦779.55].

New Horizon International IT/E-BIZ Certification Excellence Price   **July 2023**

Issued by New Horizon

-> Presented for academic excellence. Awarded a tablet.

Oluwajulo Majekodunmi Foundation: Late Mr Surajudeen Ojediran Merit Award   **July 2023**

Issued by Oluwajulo Majekodunmi Foundation

-> Best graduating student in the department of Computer Science. Awarded a prize of ₦100,000($128.14) Exchange Rate[$1=₦779.55].

School Dean's Award   **July 2023**

Issued by Babcock University

-> Best graduating student in the school of Computing and Engineering Sciences.

Highest CGPA in 400L   **May 2023**

Issued by Babcock University Computer Club

-> Student with the highest Cumulative Grade Point Average (CGPA) in 400L in the Department of Computer Science.

Cavista Hackathon winner   **March 2023**

Issued by Cavista Technologies

-> Collaborated with a team of three(3) developers and one(1) designer to build a software solution in a 24 hour coding marathon. Won a grand prize of ₦1,000,000($1,282.79) Exchange Rate[$1=₦779.55].

Highest CGPA in 300L   **March 2022**

Issued by Babcock University Computer Club

-> Student with the highest Cumulative Grade Point Average (CGPA) in 300L in the School of Computing and Engineering Sciences.

Highest CGPA in 200L   **March 2021**

Issued by Babcock University Computer Club

-> Student with the highest Cumulative Grade Point Average (CGPA) in 200L in the School of Computing and Engineering Sciences.

VOLUNTEERING

Software Developer   Apr 2022 - June 2023
Babcock University Computer Club   Babcock University

- Mentored fellow students in coding and problem-solving skills, fostering a collaborative learning environment.
- Created and maintained documentation for coding projects, ensuring knowledge transfer and future reference.

Co-Lead Blockchain Community   Nov 2022 - June 2023
Google Developer Student Clubs   Babcock University

- Mentored students interested in blockchain development, providing guidance on blockchain platforms, consensus algorithms, and distributed ledger technologies.
- Encouraged members to explore emerging trends and advancements in blockchain technology.

Student Tutor   June 2022 - June 2023
The Catalyst Tutorial   Babcock University

- Instructed students in programming courses, providing guidance on coding languages, algorithms, and problem-solving techniques.
- Offered constructive feedback on assignments and assessments, guiding students in areas of improvement.