



Chinedu Chamberlin Obasi

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ABOUT ME

- I am Obasi Chinedu Chamberlin, a dedicated and results-driven Biomedical Engineer with a Joint Master of Engineering degree from Martin Luther University Halle-Wittenberg and Anhalt University of Applied Sciences in Germany. With a profound interest in the intersection of healthcare and digital technologies, I bring over a decade of experience in materials synthesis, biomedical research, and technology implementation in healthcare settings.
- My academic journey and professional experience have equipped me with a robust skill set in biomaterials, biopharmaceuticals, and advanced digital manufacturing techniques, including 3D and 4D printing.
- My role as a Research & Development Engineer and Data Analyst at COPAL CONSULTS NIG has allowed me to design and implement innovative healthcare technologies tailored for low-resource settings, ensuring compliance with regulatory standards and enhancing healthcare delivery.
- I am also adept in various technical and laboratory skills, including molecular biology techniques, microscopy, and programming languages. My proficiency in data science and artificial intelligence, supported by recent training in AI and 3D bioprinting, positions me to contribute to the evolving landscape of digital healthcare transformation. Additionally, my multilingual capabilities in English and German facilitate effective communication in diverse environments.
- Driven by a passion for advancing personalized medicine and improving patient outcomes, I am eager to leverage my skills and knowledge in a dynamic and collaborative setting. I am committed to continuous learning and innovation, with a keen interest in contributing to cutting-edge research and development in digital health technologies.

EDUCATION AND TRAINING

A Joint Master of Engineering in Biomedical Engineering

Martin Luther University, Halle-Wittenberg & Anhalt University of Applied Sciences, Köthen, Germany

[01/10/2014 – 31/03/2020]

City: Halle-Wittenberg & Köthen | Country: Germany | Website: <https://www.uni-halle.de/?lang=en> | <https://www.hs-anhalt.de/en/start-page.html> | Final grade: 2.5 | Thesis: Development of DNA Origami-Based Electrochemical Biosensors for Biomedical Applications

Bachelor of Engineering (BEng) in Polymer & Textile Engineering

Federal University of Technology, Owerri, Imo State, Nigeria [01/09/2002 – 20/12/2007]

City: Owerri | Country: Nigeria | Website: <https://futo.edu.ng/>

WORK EXPERIENCE

Research & Development Engineer/ Data Analyst

COPAL CONSULTS NIG [01/03/2021 – Current]

City: Umuahia | Country: Nigeria

Responsible for Enabling Technologies for sustainable healthcare management systems in low resource settings.

- Conduct and design research initiatives for the identification and implementation of healthcare technologies in low-resource settings.
- Ensure adherence to high standards of quality, compliance, and regulatory requirements for implemented technologies.
- Provide training and support to healthcare professionals, ensuring the effective adoption of new technologies.
- Consult with clients to understand their needs, offering expertise on technology adoption for improved healthcare outcomes.
- Analyze healthcare data to extract meaningful insights, contributing to evidence-based decision-making and continuous improvement.

Project manager

COPAL CONSULTS NIG, Nigeria [01/04/2020 – 26/02/2021]

City: Umuahia | Country: Nigeria

- Efficiently oversaw critical COVID-19 projects, including procurement and distribution of medical supplies and PPEs.
- Pioneered 3D printing technology for PPE production during the pandemic.

Operations Agent I/Healthcare logistics

DHL Hub [27/10/2014 – 30/09/2019]

City: Schkeuditz | Country: Germany

- Leveraged Cloud Computing and data analytics for efficient logistics and precise deliveries.
- Expertly managed diverse items, including dangerous goods, medical and biotechnological products, in compliance with IATA/ICAO DG regulations.

Production/Process Engineer

Evamab Industries Ltd [01/10/2010 – 30/09/2014]

City: Mgbidi | Country: Nigeria

- Conducted research and analyzed various aspects of manufacturing to ensure high quality standards and compliance with government regulations.
- Monitored process parameters to optimize processes and coordinated maintenance and repair operations.

PROJECTS

[01/12/2023 – 31/01/2024]

Project: Analyzing Tuberculosis Cases in Kaduna State from 2021 to 2023 using Data Science The "Analyzing Tuberculosis Cases in Kaduna State from 2021 to 2023 Using Data Science" project aims to leverage advanced data science techniques to understand the patterns, trends, and determinants of tuberculosis (TB) cases in Kaduna State, Nigeria, over a three-year period. This comprehensive analysis seeks to provide actionable insights to public health officials, policymakers, and healthcare providers to improve TB control and prevention strategies in the region.

[19/03/2023 – 19/05/2023]

Project: "Design and Optimization of CNN Architecture For Pharmaceutical and Biotechnological Pill's Image Classification For Retrieval Systems" The "Design and Optimization of CNN Architecture for Pharmaceutical and Biotechnological Pill Image Classification for Retrieval Systems" project aims to develop and refine a convolutional neural network (CNN) to accurately classify images of pharmaceutical and biotechnological pills. This classification system will enhance the efficiency and accuracy of pill identification and retrieval processes, contributing to improved pharmaceutical management and patient safety.

[01/09/2019 – 31/03/2020]

Project: Development of DNA Origami-Based Electrochemical Biosensors for Biomedical Applications The "Development of DNA Origami-Based Electrochemical Biosensors for Biomedical Applications" project focuses on creating innovative biosensors utilizing DNA origami structures for precise and efficient detection of biomolecules. By leveraging the unique properties of DNA origami, this project aims to enhance the sensitivity, specificity, and overall performance of electrochemical biosensors in various biomedical applications.

[01/11/2015 – 31/07/2016]

Project: "Role of enabled surface diffusion in ordering DNA Origamis on surfaces" The project titled "Role of Enabled Surface Diffusion in Ordering DNA Origamis on Surfaces" investigates the mechanisms and processes involved in the precise arrangement of DNA origami structures on surfaces. The focus is on enhancing surface diffusion to achieve well-ordered patterns, which are crucial for various applications in nanotechnology and biosensing.

[01/10/2014 – 31/03/2015]

NIGCAM (Nigeria-Cameroun) Project for Effective, Efficient and Cost Effective Pulse Oximeter for Developing nations This project focused on developing a pulse oximeter tailored to meet the specific needs of developing nations. The goal was to design a device that is not only effective and efficient but also cost-effective, ensuring widespread accessibility and usability in low-resource settings.

[01/09/2013 – 30/09/2014]

Project: "Enzymatic Levan formation with levansucrase from Bacillus Megaterium, Purification and Self Assembling of Levan nanoparticles" This project aimed to explore the enzymatic production of levan using levansucrase from Bacillus megaterium, followed by the purification and self-assembly of the resulting levan nanoparticles. Levan is a valuable polysaccharide with applications in biomedicine and biotechnology due to its unique properties.

[01/11/2011 – 30/09/2012]

Project: "Encapsulation of C3H10T1/2 Stem Cells in Polysaccharide based Hydrogels" The project involved the encapsulation of C3H10T1/2 stem cells in polysaccharide-based hydrogels to study their proliferation and differentiation patterns. The primary goal was to create a conducive environment for the stem cells to thrive, which is crucial for tissue engineering and regenerative medicine applications.

TRAINING COURSES/CERTIFICATIONS

[18/02/2023 – 19/05/2023]

Training in Artificial Intelligence (Data Science)

This intensive training program focused on developing expertise in Artificial Intelligence (AI) and Data Science, with a particular emphasis on machine learning, deep learning, and their applications in various industries such as pharmaceutical and biotechnological fields. The training combined theoretical knowledge with hands-on projects to ensure practical understanding and application of AI techniques.

[25/11/2023 – 25/11/2023]

"Ethics and Governance of Artificial Intelligence for Health"World Health Organization (OpenWHO.org)

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[25/11/2023 – 25/11/2023]

"Managing Conflict of Interest in National Pharmaceutical Systems" World Health Organization (OpenWHO.org)

This specialized training provided an in-depth understanding of the principles and practices involved in managing conflicts of interest within national pharmaceutical systems. It aimed to equip professionals with the knowledge

and skills necessary to identify, assess, and mitigate conflicts of interest that can affect the integrity and credibility of pharmaceutical regulation, procurement, and policy-making.

[11/12/2023 – 15/12/2023]

“Basic Software Skills Training” by Software Carpentry

The program covers core computational skills, including task automation, version control, and modular programming.

[17/10/2023 – 18/10/2023]

Training in 3D Bioprinting for Healthcare Applications

This course delved into the applications of 3D bioprinting in various healthcare fields such as Tissue Engineering, Regenerative Medicine, and Drug Development. It covered both extrusion- and light-based printing methods, which enable the creation of 3D constructs using biomaterials and living cells. While these techniques share the same foundation, they differ in mechanisms, materials, and resolution. Understanding these variances empower researchers to choose the most suitable printing method for their projects.

PUBLICATIONS

[2023]

[3D Bioprinting of Advanced Bioinks for Tissue Regeneration and Biosensor Development](#) In the book chapter titled "3D Bioprinting of Advanced Bioinks for Tissue Regeneration and Biosensor Development" by Banigo Alma T. and Obasi Chinedu C. (2023), published in "Recent Advances in Biosensor Technology," Volume 2, the authors discuss the utilization of 3D bioprinting techniques for creating advanced bioinks. These bioinks are instrumental in tissue regeneration and the development of biosensors. The chapter explored recent advancements in the field, highlighting the potential of bioprinting technology in biomedical applications.

Banigo Alma T. & Obasi Chinedu C., (2023), Recent Advances in Biosensor Technology, Vol. 2, 1-00

[2010]

Essential Mathematics For Business & Economics, Springfield Publishers, Owerri, Nigeria. In the book titled "Essential Mathematics for Business & Economics" authored by Alamba C. S., Obasi C. C., and Eboh D. C. (2010), published by Springfield Publishers in Owerri, Nigeria, the authors provided a comprehensive overview of mathematical concepts relevant to business and economics. The book covered topics such as algebra, calculus, statistics, and optimization techniques tailored specifically for application in business and economic contexts.

• Alamba C. S., Obasi C. C., & Eboh D. C. (2010), Springfield Publishers, Owerri, Nigeria.

SKILLS

Computer Skills

- MS office applications (Word, Excel, & Power point).
- Programming: Python, C/C++, Java, bash, LATEX.
- Softwares: Matlab, CaDNAo, Simulink, AutoCAD & Lab View.
- Artificial Intelligence: Machine Learning, TensorFlow, Keras, Convolutional Neural Network, Recurrent Neural Network, Sequence Classification, Image Segmentation.

Language Skills

- English: proficient speaker and passed previous IELTS exam (**7.0, C1**).
- German: TELC B1 exam passed

Technical/Laboratory Skills

- Cell & MSCs culture, control of cell adhesion, proliferation & differentiation.
- Surface modification & 3D (bio) printing.
- Cell-materials interactions, Cytotoxicity and 3D encapsulation.

Molecular Biology techniques skills

- DNA/protein isolation & PCR, qRT-PCR,
- Electrophoresis (Agarose and Polyacrylamide).
- Western blot and ELISA.

Microscopy skills

- Western blot and ELISA.
- Confocal microscopy.
- Fluorescence and Phase contrast microscopy.
- Atomic Force microscopy.
- Light and Electron microscopy.

HONOURS AND AWARDS

[01/10/2022] Copal Consults Nig

Copal Consults Nig Travel Grant for Training in 3D Bioprinting in Manchester, United Kingdom The grant supported my training aimed to enhance my knowledge and skills in bioprinting techniques, with a specific focus on their applications in healthcare, tissue engineering, and regenerative medicine.

[01/08/2009] Corpers Liaison Office, Dawakin Kudu LGA

Dawakin Kudu L.G.A, Award of Excellence for Community Development Service This recognition acknowledges the my notable contributions and dedication to community development initiatives within the Dawakin Kudu region

NETWORKS AND MEMBERSHIPS

International Association of Engineers & Computer Scientist (IAENG)

Biomedical Engineering Society

VOLUNTEERING

[01/07/2021 – Current] Hale (Saale)

Project Manager for Digital Skills and STEM promotion , IT Trainer, Mentor, and STEM Ambassador At the IBK Integrationszentrum in Halle (Saale), Germany, I played a pivotal role in spearheading and overseeing five funded projects aimed at promoting digital skills and STEM (Science, Technology, Engineering, and Mathematics) education. My responsibilities included project initiation, management, and coordination to ensure the successful implementation of these initiatives. Additionally, I actively contribute to the advancement of digital literacy among

migrants by providing training sessions on various digital skills. My efforts led to the empowerment of over 60 migrants, equipping them with essential digital competencies to navigate and thrive in today's digital world.

REFERENCES

Available Upon request