

Michael Ajao-Olarinoye, MSc, AFHEA

☎ +44(0)7955797785 | ✉ ajaoolarinoyemichael@gmail.com | 🌐 michaelajao.github.io
🏠 michael-ajao | 🌐 michaelajao | Coventry, United Kingdom

PERSONAL PROFILE

I am a dedicated scientist and educator with over five years of experience in both academia and industry. I am currently pursuing a PhD in Computational Science and Mathematical Modelling at Coventry University in my final stages. My research centres on developing effective algorithms and demand estimation models for infectious disease management, with a particular focus on the COVID-19 pandemic. I possess a strong background in data science, machine learning, and artificial intelligence, with expertise in predictive and prescriptive modelling, deep learning, and natural language processing. I am passionate about leveraging data-driven insights to solve real-world problems and drive positive societal change. I am seeking opportunities to apply my skills and expertise in a dynamic and collaborative environment, where I can contribute to cutting-edge research and innovation.

SKILLS

- **Programming Languages:** Python, R, Julia, JavaScript, Dart
- **Data Science & Machine Learning:** TensorFlow, PyTorch, Keras, Scikit-learn, Pandas, NumPy, Matplotlib, Seaborn, Plotly, NLTK, OpenCV, Scrapy, Beautiful Soup
- **Research Skills:** Deep Learning, Reinforcement Learning, Natural Language Processing, Computer Vision, Time Series Analysis, Optimisation, Clustering, Classification, Regression, Anomaly Detection, Topic Modelling, Sentiment Analysis, ETL, Data Modelling, Data Analysis
- **Research and Soft Skills:** Literature Review, Algorithm Development, Statistical Modelling, Data Visualisation, Academic Writing, Time Management, Project Management, Presentation, Microsoft Office Suite
- **Web:** HTML, CSS, Node.js, Webflow
- **Database Systems:** MongoDB, MySQL, Firebase
- **Cloud:** AWS, Google Cloud, Microsoft Azure
- **DevOps & Version Control:** Docker, Git (GitHub, GitLab)
- **Other Tools:** Figma, Flask, Flutter, IBM Watson, Tableau, \LaTeX

EDUCATION

- **Coventry University** May 2021 – Present
Doctor of Philosophy (PhD) in Computational Science and Mathematical Modelling Coventry, United Kingdom
 - Submitted Thesis: Data-Driven Algorithms for Forecasting Critical Care Demand during the COVID-19 Pandemic
 - Expected Graduation: July 2026
- **Coventry University** January 2020 – January 2021
Master of Science (MSc) in Data Science and Computational Intelligence Coventry, United Kingdom
 - Dissertation: Plant Disease Detection: A Cross-Platform Mobile Application Using Artificial Neural Networks, achieving a Distinction
 - Key Modules: Machine Learning, Big Data Management and Data Visualisation, Data Management Systems, Information Retrieval, Research Methods, Advanced Machine Learning, Artificial Neural Networks, and Statistical Methods for Data Science
- **Kwara State University (KWASU)** September 2011 – July 2016
Bachelor of Engineering (BEng) in Electrical and Electronics Engineering Malete, Nigeria
 - Project: Designed and built a 2km Low-Power FM Transmitter, achieving a Second Class Honours
 - Key Modules: Engineering Mathematics, Modelling and Simulation, Mobile and Wireless Communication Systems, Design of Electrical and ICT Services, Engineering Management, Satellite Communications, Power Electronics, Optical Fibre Communication Systems, Digital Signal Processing, Control Engineering, Electric Power Principles, Artificial Intelligence and Application, Digital Electronics, Principles of Communication Engineering and Electromagnetic Fields, Applied Computer Programming, Electrical Machines, Electric Circuit Theory and Waves

WORK EXPERIENCE

• QAHE Ltd

February 2025 – Present

Birmingham, United Kingdom

- Lecturer in computing*
- Delivered high-quality teaching in computer science modules including Programming, Data Science and Machine Learning at Ulster University and Southampton Solent University through QAHE's university partnerships.
 - Designed and implemented course materials, assessments, and interactive learning activities aligned with university curricula and learning outcomes.
 - Provided academic support and mentorship to diverse student cohorts, employing inclusive teaching strategies to accommodate various learning styles.
 - Collaborated with academic teams across partner universities to ensure consistency in teaching quality and assessment standards.
 - Participated in departmental meetings, curriculum development initiatives, and quality assurance processes to maintain high educational standards.
 - Engaged in continuous professional development to enhance teaching methodologies and stay current with emerging technologies in computing.
 - Utilized learning management systems and educational technologies to deliver blended learning experiences and support student engagement.

• Coventry University

April 2021 – January 2025

Coventry, United Kingdom

- Postgraduate Researcher*
- Authored peer-reviewed publications and presented research at prestigious conferences, including ICMLA, significantly contributing to institutional research output.
 - Developed and delivered tutorial sessions, workshops, and individual student support for Electrical, Electronics and Computing department, including curriculum development, student mentorship, and adapting teaching methods to diverse learners.
 - Marked and graded assessments, and provided constructive feedback to students. (CSMM).
 - Mentored postgraduate students and collaborated with interdisciplinary teams on AI-driven and healthcare projects.
 - Served as a Program Committee Member for the 23rd IEEE International Conference on Machine Learning and Applications (ICMLA), contributing to paper reviews and conference planning.
 - Actively participated in internal conferences and academic workshops, fostering an interdisciplinary research environment and contributing to department-wide initiatives.
 - Continuously sought feedback from peers and professors on my research and teaching to improve my practices and ensure high-quality output.

• Tammy Tech

March 2020 – April 2021

Lagos, Nigeria

- Software Developer*
- Designed and developed web and mobile applications using technologies such as HTML, CSS, JavaScript, and Flutter, enhancing client product offerings by 30%.
 - Collaborated with clients to translate their needs into robust technical solutions, applying agile methodologies to deliver projects on time.
 - Integrated various APIs and built databases to support mobile app functionality, improving user experience and engagement.
 - Kept abreast of the latest programming trends and practices through continuous professional development, applying them to project work.

• Verificar Compliance

September 2018 – January 2020

Lagos, Nigeria

- Business Systems Analyst*
- Conducted business analysis and developed IT solutions to streamline company processes, resulting in a 15% improvement in operational efficiency.
 - Designed and implemented dashboards and reporting systems to track performance metrics, facilitating data-driven decision-making.
 - Coordinated between technical teams and business stakeholders, ensuring that solutions were aligned with organisational needs.
 - Analysed market trends and emerging technologies to inform product development strategies, positioning the company for future growth.

PUBLICATIONS

- Ajao-Olarinoye, M., Palade, V., Mousavi, S., He, F., Wark, P. A. (2023, December). Deep Learning Based Forecasting of COVID-19 Hospitalisation in England: A Comparative Analysis. In 2023 International Conference on Machine Learning and Applications (ICMLA) (pp. 1344-1349). IEEE. [link]
- Ajao-Olarinoye, M., Palade, V., He, F., Wark, P. A., Mukandavire, Z., Mousavi, S. (Forthcoming). A hybrid physics-informed neural network - SEIRD model for forecasting COVID-19 intensive care unit demand in England. In O. Uche, V. Palade, M. W. Arif (Eds.), Recent advances in deep learning applications. Taylor Francis.
- Ur Rehman, M. A., Ekici, O., Farooq, M. A., Butt, K., Ajao-Olarinoye, M., Wang, Z., Liu, H. (2025). Fluid-structure interaction analysis of pulsatile flow in arterial aneurysms with physics-informed neural networks and computational fluid dynamics. *Physics of Fluids*, 37(3). [link]

VOLUNTEER EXPERIENCE / EXTRACURRICULAR ACTIVITIES

- **African Institute for Artificial Intelligence (AIAI)**
Group Head of AI Literacy January 2024 – Present
Remote
- **Nigeria Union of Engineering Students Association (NUESA), Kwara State University**
Vice President June 2014 – June 2015
On-site
- **CodeYourFuture, Birmingham, United Kingdom**
Lecturer December 2020 – Present
Remote
- **National Youth Service Corps (NYSC), Nigeria**
Project Manager for Gender Vanguard CDS November 2016 – October 2017
On-site

CERTIFICATIONS

- **Chartered Management Institute (CMI) - 2021:**
 - CMI Level 7 Certificate in Strategic Management and Leadership
 - CMI Level 7 Award in Professional Consulting
- **KPMG Virtual Experience Program (Forage) - 2020**
- **The Fundamentals of Digital Marketing** (Google Digital Skills for Africa) - 2018
- **Complete Machine Learning and Data Science Zero to Mastery** (Udemy) - 2020
- **The Complete 2020 Flutter Development Bootcamp with Dart** (Udemy) - 2020
- **Cybersecurity for Business Specialization** (University of Colorado, Coursera) - 2021
- **Google IT Support Professional Certificate** (Google, Coursera) - 2020
- **edX Verified Certificate in Optimization: Principles and Algorithms** - 2023: Courses Covered: Unconstrained Nonlinear Optimization, Network and Discrete Optimization, Linear Optimization

HONORS AND AWARDS

- **Coventry University**
PhD Studentship Award May 2021
 - Awarded a fully-funded PhD studentship at the Centre for Computational Science and Mathematical Modelling (CSMM) to research resource allocation during pandemics.
- **CSMM Conference**
Best Reviewer Award June 2024
 - Received recognition for outstanding contribution in reviewing conference papers and providing high-quality feedback to authors.
- **Kwara State University (KWASU), Entrepreneurship and Innovation Challenge**
Third Place in Community Development Project October 2017
 - Achieved third place for leading a community development project focused on youth empowerment through technology.
- **2nd International Conference of "Future Algorithms"**
First Prize — Poster Competition July 2025
 - Won first prize for the poster titled "Physics-Informed Neural Networks for Fluid-Structure Interaction Analysis of Arterial Aneurysms."

PROFESSIONAL MEMBERSHIPS

- Associate Fellow of the Higher Education Academy (AFHEA) - 2024 – Present
- Chartered Management Institute (CMI), Level 7 Certificate - 2021 – Present
- IEEE Student Member - 2021 – Present
- ORCID - Credential ID: 0000-0003-2763-8293

ADDITIONAL INFORMATION

Languages: English (Professional proficiency), French (Elementary proficiency), Yoruba (Native proficiency)

Interests: Reading, Travelling, Teaching, Mentoring, Community Service, Music, and Sports (Football, athletics), AI Ethics, and Sustainability

REFERENCES

References available upon request.