

Dr Babatunde Onikoyi, PhD, FHEA

SENIOR DATA SCIENTIST · AI/ML RESEARCH LEADER · DATA SCIENCE TRAINING SPECIALIST · STRATEGIC ANALYTICS EXECUTIVE

United Kingdom

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Professional Summary

Data Scientist and strategic analytics expert with 8+ years of experience in academia, financial services, and public sector. PhD in Computer Science and Informatics with specialised expertise in Data Science, Machine Learning, and Artificial Intelligence applications. Currently spearheading Greater Manchester Combined Authority's data science transformation across Education, Work and Skills directorate serving over 2.8 million residents. Proven track record of developing state-of-the-art ML algorithms achieving industry-leading 96% F1 scores in NLP, leading cross-functional analytics teams, and delivering enterprise-scale data science infrastructure for education programmes. Published researcher with breakthrough contributions to Natural Language Processing and sentiment analysis.

Core Technical Skills

Programming & Analytics: Python, SQL, Advanced Excel, ETL Development, Statistical Analysis, Web Technologies

AI/ML Frameworks: TensorFlow, PyTorch, Scikit-learn, NLTK, Transformer Models (BERT, GPT-2, BART)

Data Visualisation: Tableau, Power BI, Advanced Dashboard Architecture, Interactive Analytics Systems

Advanced Analytics: Machine Learning, Deep Learning, Predictive Analytics, Natural Language Processing, Sentiment Analysis

Professional Experience

Greater Manchester Combined Authority

Manchester, United Kingdom (Hybrid)

DATA SCIENTIST & MANAGEMENT INFORMATION LEAD

January 2025 - Present

- Spearheading the data science and management information function for Education, Work and Skills directorate serving Greater Manchester's over 2.8 million residents.
- Leading implementation of enterprise-scale data and MI systems, building robust data frameworks for complex multi-borough datasets.
- Pioneering application of advanced machine learning methodologies in public policy context, driving evidence-based decision-making processes.
- Building and directing high-performing analytics teams, fostering culture of continuous innovation and analytical excellence.
- Developing complex automated reporting ecosystems, interactive dashboards for leadership using Python, SQL, Web Technologies, and Power BI.
- Providing data-driven insights that directly inform Greater Manchester's education and skills investment strategies.

Netcom Training

Remote, United Kingdom

DATA SCIENCE TRAINER

July 2024 - January 2025

- Designed and delivered comprehensive data science education programmes, transforming learners into industry-ready data professionals across Data Technician, Data Analyst, and Data Scientist career pathways.
- Developed industry-aligned training modules covering Python programming, advanced SQL, Tableau/Power BI visualisation, statistical analysis, and machine learning fundamentals.
- Created hands-on project portfolios and real-world case studies bridging theoretical knowledge with practical implementation.
- Structured learning pathways developing both technical competencies and critical thinking capabilities essential for data science success.

Hugh Baird University Centre

Liverpool, United Kingdom

LECTURER IN COMPUTING

January 2024 - January 2025

- Delivered innovative computing education with specialised focus on computer science and analytics using research-informed pedagogy.
- Module Leader for Systems Analysis and Database Design, Introduction to Programming in Engineering, Computer Systems and Security, and Internet Application Development.
- Designed cutting-edge curricula integrating latest industry technologies and methodologies, ensuring students graduate with relevant skills.
- Built strategic partnerships with technology companies and embedded employability skills throughout academic programmes.
- Implemented innovative teaching methodologies and assessment frameworks enhancing student engagement and learning outcomes.

Edge Hill University

Liverpool, United Kingdom

ASSOCIATE TUTOR AND RESEARCHER

January 2021 - August 2025

- Led research-driven teaching activities whilst maintaining active research programme in Computer Science and AI/ML applications.
- Authored multiple peer-reviewed research papers in top-tier Computer Science and Natural Language Processing journals.
- Successfully integrated cutting-edge research findings into curriculum development, enhancing academic rigour and practical application.
- Mentored and supervised student research projects, developing next generation of computer science researchers.
- Collaborated on interdisciplinary research projects covering computer science, data science, business analytics, and educational technology.

Stanbic IBTC

DATA AND PLATFORM MARKETING MANAGER

Lagos, Nigeria

September 2020 - January 2021

- Developed and implemented enterprise-level data-centric marketing strategies by leveraging advanced analytics and predictive modelling.
- Achieved 25% increase in Customer Lifetime Value through predictive modelling and advanced customer segmentation strategies.
- Led cross-functional marketing team implementing data-driven campaigns using predictive analytics and data mining techniques to optimise performance.
- Managed comprehensive online presence optimisation, applying SEO and SEM best practices based on extensive data analysis, resulting in 40% increase in organic traffic.
- Used advanced analytics to identify and target niche customer segments, achieving 20% increase in product adoption rates.

Stanbic IBTC

DEPUTY MARKETING MANAGER

Lagos, Nigeria

October 2017 - September 2020

- Used comprehensive data analysis and visualisation techniques to inform strategic marketing decisions across multiple channels and segments.
- Executed data-driven marketing campaigns incorporating customer segmentation, achieving a 30% increase in email open rates and website visits, and a 20% improvement in social media engagement.
- Pioneered data-driven approach to event planning and sponsorship selection, analysing attendee feedback and engagement metrics, resulting in 25% increase in lead generation efficiency.
- Developed comprehensive marketing analytics dashboards and KPI frameworks for continuous campaign optimisation.

Education

Edge Hill University

DOCTOR OF PHILOSOPHY (PHD) IN COMPUTER SCIENCE AND INFORMATICS

Liverpool, United Kingdom

January 2021 - April 2025

- Thesis: Exploring Predictive Models of Consumer Behaviour Using Machine Learning, NLP, and Data Mining.
- Developed novel machine learning and natural language processing models, achieving up to 96% F1-score in aspect-based sentiment analysis and 70% accuracy in gender prediction from social media data.
- Published research in peer-reviewed Q1 journals including *Natural Language Processing Journal*; contributed open-source datasets on consumer analytics and gender prediction.
- Created scalable, AI-driven predictive frameworks enabling improved consumer insight generation, online advertising optimisation, and cross-domain transferability across finance, education, and healthcare.

Edge Hill University

POSTGRADUATE CERTIFICATE IN TEACHING IN HIGHER EDUCATION

Liverpool, United Kingdom

2022 - 2023

- Achieved Fellow of the Higher Education Academy (FHEA) status, demonstrating commitment to teaching excellence.
- Developed expertise in evidence-based teaching methodologies and research-informed curriculum design.

Aston University

MSC INFORMATION SYSTEMS & BUSINESS ANALYSIS (MERIT)

Birmingham, United Kingdom

2013 - 2014

- Specialisation: Data Mining, Business Systems Analysis, Database Management.
- Dissertation on data mining techniques for customer segmentation and targeted marketing received faculty recognition.
- Acquired advanced skills in data analysis, system design, and information management.

Middlesex University

BSC (HONS) INFORMATION TECHNOLOGY & BUSINESS INFORMATION SYSTEMS (2:1)

London, United Kingdom

2010 - 2013

- Specialisation in Data Warehousing, Business Intelligence, Database Management Systems, and Business Computing.
- Gained strong analytical and technical foundations integrating IT systems with business strategy.

Middlesex University

INTERNATIONAL FOUNDATION PROGRAMME (INFORMATION TECHNOLOGY & BUSINESS) (2:1)

Dubai, United Arab Emirates

2009 - 2010

- Focus on Mathematical Thinking, Business in Context, IT for Academic Study, and Research Methods.
- Developed academic and digital literacy skills essential for undergraduate study in IT and business.

Professional Recognition

2023 Fellow of the Higher Education Academy (FHEA), Professional recognition for teaching excellence

United Kingdom

2022 Computer Science Research Committee Member, Edge Hill University

United Kingdom

2022 Microsoft Certified Educator (MCE)

Worldwide

2014 Beta Gamma Sigma Honorary Society, International recognition for academic excellence in business studies

Top 10% Globally

Research Publications

Gender Prediction with Descriptive Textual Data Using a Machine Learning Approach

Natural Language Processing Journal (Q1, Elsevier)

PUBLISHED RESEARCH

2023

- Developed a novel machine learning framework for gender prediction using combined textual and profile features, achieving 70% classification accuracy with GloVe embeddings and Random Forest.
- Expanded existing Twitter gender dataset (20k to 296k tweets), producing the largest corpus of its type and improving model performance by 10%.

Predicting Student Academic Outcome Using Online Behavioural Statistics and Neighbourhood Influences: A Machine Learning Approach

SN Computer Science (Springer Nature)

PUBLISHED RESEARCH

2025

- Developed predictive models integrating VLE behavioural analytics and neighbourhood metrics to identify at-risk students mid-semester.
- Machine learning approach achieved macro-F1 of 81%, a 14-point improvement over traditional attendance-based monitoring—validating early-warning interventions for student success.

University Induction and 1st-Year Students’ Integration into Higher Education: An Exploration of Experiences

SSRN (Elsevier Preprint Series)

PUBLISHED RESEARCH

2024

- Conducted mixed-methods study evaluating the effect of team-building, employability talks, and social activities on first-year confidence and integration.
- Generated practical recommendations to shape evidence-based induction design & enhance student retention strategies across higher education.

A Hybrid Question Answering and Sequence Labelling Model for Opinion Target Extraction

Major NLP Journal (under review)

UNDER REVIEW

2024

- Introduced semi-supervised ABSA framework reframing aspect extraction as a question-answering task to reduce manual annotation reliance.
- Achieved state-of-the-art results across SemEval, MAMS, and MEMD benchmarks (96% F1 for keyword matching; 95% F1 for exact phrase extraction).

Gender Classification Using Twitter Data

Mendeley Data (DOI: 10.17632/6x9srbfp6w)

PUBLISHED DATASET

2022

- Expanded corpus of 20k to 296k tweets supporting research on NLP-based demographic inference and gender classification.

Survey Response – University Induction and 1st-Year Students’ Integration into Higher Education

Mendeley Data (DOI: 10.17632/7b4ktcjrbd)

PUBLISHED DATASET

2023

- Anonymised dataset of first-year student survey responses with mixed-methods research on induction experience and integration outcomes.