TOLU A. OLUKOGA

(337) 303-6531 | tolu.olukoga@gmail.com | Seattle, WA (open to relocate)

PROFESSIONAL SUMMARY

Machine Learning Scientist with 2+ years of proven experience designing, deploying, and optimizing advanced AI/ML models at production scale. Delivered solutions generating $1M+ in incremental gross profit and significantly improved conversion metrics. Adept at cross-functional collaboration, translating business problems into actionable AI solutions, and committed to continuous professional development.

TECHNICAL SKILLS

- **Programming**: Python, SQL, PySpark
- **Machine Learning**: Deep Learning, Transformers, Generative AI, Retrieval Augmented Generation (RAG), NLP, LLMs, Ensemble Methods, Time Series Analysis, Unsupervised Learning, Experimental Design
- **Frameworks**: TensorFlow, PyTorch, Keras, Scikit-learn, Pandas, NumPy
- **Big Data & Cloud**: Databricks
- **Visualization**: Matplotlib, Seaborn, Tableau

PROFESSIONAL EXPERIENCE

Machine Learning Scientist – Expedia Group, Seattle, WA

2023 – Present

- Designed and deployed end-to-end machine learning solutions, increasing annual gross profit by $1.14M and improving conversion metrics by 0.6 BPS and 0.21% CVR.
- Led cross-functional teams (product, engineering, business) to define business objectives, develop scalable AI solutions, and drive implementation.
- Delivered and maintained personalization models, enhancing customer experience across Expedia Group platforms and increasing user engagement.
- Effectively communicated technical concepts and model results to non-technical stakeholders via clear visualizations and business-focused presentations.

Machine Learning Scientist Intern – Expedia Group, Seattle, WA

2022 – Less than a year

- Developed and validated predictive models for customer engagement, directly supporting recommendation system enhancements.
- Applied rigorous statistical testing and model evaluation methodologies to ensure robust performance and measurable business impact.

Machine Learning Engineer Intern - Divercity Inc., Los Angeles, CA

May 2021 – Less than a year

- Built and optimized machine learning algorithms, achieving over 90% accuracy in demographic prediction models for product personalization.
- Implemented modern development practices, including version control and collaborative coding, improving team productivity and code reliability.

Graduate Research Assistant - University of Louisiana at Lafayette

2017 – 2022

- Applied advanced analytics and machine learning to solve complex engineering challenges across multidisciplinary research projects.
- Developed segmentation models that reduced analysis time by 200%, demonstrating significant process optimization.
- Created predictive models transforming raw data into actionable business insights, supporting data-driven decision-making.

EDUCATION

- Ph.D., Systems Engineering – University of Louisiana at Lafayette, USA (2022)
- M.S., Informatics – University of Louisiana at Lafayette, USA (2022)
- M.S., Petroleum Engineering – Heriot Watt University, UK (2016)
- B.S., Civil Engineering – Obafemi Awolowo University, Nigeria (2008)

SELECTED PUBLICATIONS

- Olukoga, T. et al., “Ensemble Machine Learning for Predicting Viscosity of Nanoparticle-Surfactant-Stabilized CO2 Foam,” *SPE Reservoir Evaluation & Engineering*, 2022.
- Olukoga, T. & Feng, Y., “Determination of miscible CO2 flooding analogue projects with machine learning,” *Journal of Petroleum Science and Engineering*, 2022.
- Olukoga, T. & Feng, Y., “Practical Machine-Learning Applications in Well-Drilling Operations,” *SPE Drilling & Completion*, 2021.