Joshua Ndala

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EDUCATION

University of British Columbia
Bachelor of Arts in Computer Science

SKILLS & INTERESTS

Programming Languages: Python, Java, R, JavaScript, SQL

Machine Learning and Data Science: TensorFlow, Scikit-Learn, Natural Language Processing

Data Analysis and Visualization: RStudio, MySQL, Tableau, Python Libraries (Matplotlib, Seaborn, etc)

Tools and Software: Tableau, Google Colab, Jupyter Notebooks, Google Cloud Platform, GitHub, Docker

Web Development: HTML, CSS, JavaScript, React, Next.js, Express.js, Node.js, RESTful APIs

PROFESSIONAL EXPERIENCE

Triumph Education Consulting   **Canada (Remote)**
Data-Driven Web Developer (Freelance)   *Aug 2024 - Present*
- Developing a comprehensive website for an education consulting company, integrating data-driven features to showcase services and facilitate client engagement.
- Utilizing Next.js and Tailwind CSS to create a modern, responsive web interface, with a focus on presenting educational data and analytics effectively.
- Implementing data visualization components to illustrate the company's impact and performance metrics.

UBC For Learnification   **Kelowna, BC**
AI and Data Scientist / Software Developer   *May 2024 - Aug 2024*
- Developed an AI-powered assignment grading system, improving grading speeds by **75%** while maintaining data security.
- Implemented AI functionality using Microsoft's Phi-3 LLM through Ollama, enabling efficient and secure local processing of assignments.
- Designed and implemented SQL queries for efficient data retrieval from MySQL database, focusing on scalability for high-volume interactions.
- Conducted data-driven usability testing, resulting in a **20%** improvement in user satisfaction scores and a **30%** increase in overall satisfaction with AI grading accuracy.
- Utilized data analysis to guide UI improvements, leading to a **15%** increase in system status visibility and a **25%** improvement in error messaging clarity.

PERSONAL PROJECT EXPERIENCE

Smartphone Price Prediction Analysis   **Canada (Remote)**
ML Engineer, IBM Machine Learning Certificate   *Oct 2024 - Oct 2024*
- Designed and implemented end-to-end ML pipeline, achieving **96.5%** prediction accuracy through custom ETL processes and model optimization
- Engineered robust data processing system handling 1,500+ entries, reducing feature extraction time by **40%** through optimized transformation algorithms
- Implemented and compared multiple ML models (XGBoost, Random Forest, Linear Regression) with automated hyperparameter tuning, improving baseline accuracy by **4.5%**
- Developed modular Python codebase with clean architecture principles, including automated testing and model performance monitoring. Available to view/recreate on GitHub.

Automated Fake News Detection On Social Media   **Kelowna, BC**
Researcher / Machine Learning Engineer, UBC   *Jan 2024 - Apr 2024*
- Analyzed and processed large datasets (43,000+ labeled examples) using Python libraries like Pandas for data cleaning, normalization, and feature extraction.
- Engineered data pipelines with TensorFlow, implementing LSTM, RNN, and BERT models achieving **99%** accuracy on news datasets and **50%** on tweets.
- Optimized BERT model, achieving **73%** accuracy on Bangladeshi tweets, demonstrating adaptability to diverse linguistic contexts.
- Conducted sentiment analysis on fake vs. real news, revealing nuanced insights into detection challenges.
- Published the final research paper on GitHub, contributing to open-source research in fake news detection.