Tobi Salam

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EDUCATION

University of Saskatchewan **May 2027**

Bachelor of Science in Computer Science, Specialization in Artificial Intelligence *Saskatoon, SK*

- Relevant Coursework: Data Structures and Algorithms, Programming Principles and Practice, Linear Algebra, Object-Oriented Programming, Calculus, Principles of Computer Science.

EXPERIENCE

AI Research Engineer Intern July 2023 – August 2023

Neuromatch *Remote*

- Designed, developed, and deployed a **sentiment analysis software using a Twitter dataset, achieving a 91% accuracy on the testing set**.
- **Developed and fine-tuned a custom BERT-based sentiment classifier**, extending the architecture with additional linear and dropout layers to improve model generalization and robustness.
- **Built an end-to-end NLP pipeline** including preprocessing, BERT tokenization, PyTorch model training, and performance evaluation (confusion matrix, accuracy, and classification reports), demonstrating expertise in modern deep learning frameworks.
- Led the research team, delivering multiple presentations on AI advancements and project progress.

Machine Learning Developer October 2022 – June 2023

Robotics and Artificial Intelligence Nigeria (R.A.I.N) *Oyo,NG*

- Built a **deep learning-based heart disease detection system** with TensorFlow, Keras, and CNNs, achieving **92% diagnostic accuracy on MRI scans** and demonstrating clinical potential.
- **Collaborated with domain experts** to integrate specialized knowledge, ensuring high-quality and contextually relevant training data.
- Developed and optimized a **machine learning model on the MNIST dataset**, reaching **95% accuracy** on both training and testing phases, confirming strong model generalization.

PROJECTS

Driver Drowsiness Detection system github.com/Jtsalam/Driver-Drowsiness-System

- Developed an **AI-powered drowsiness detection system** that identified fatigue in individuals using eye and mouth distance analysis.
- Applied **OpenCV for real-time monitoring** of eye closure and mouth movements, detecting signs of drowsiness such as prolonged blinking and yawning.
- Implemented **Haarcascade frontal-face detection** to accurately locate and track facial features for reliable, real-time monitoring.
- Integrated **Pygame mixer alerts** to provide immediate audio warnings when drowsiness was detected, enhancing driver safety.

Stock Price prediction model github.com/Jtsalam/Stock-prediction-model

- Built a **full-stack web application** with Flask backend and HTML/CSS frontend for interactive stock price forecasting.

- Implemented forecasting functionality using the **yfinance library** to predict stock prices of major companies (e.g., Google, Microsoft, Apple) based on user-selected timeframes.
- **Achieved accurate short-term forecasts (~85% on test data)** and reduced retrieval time by **30%**, enhancing both prediction reliability and user experience.

String - Cultivator's 24-Hour Startup Hackathon string-pre-alpha.vercel.app/

- Developed **"String," a social media platform for STEM students**, featuring a personalized, content-based recommendation feed.
- Designed and implemented a **recommendation system prototype** leveraging user input and content tags to increase engagement.
- **Awarded *Best Tech* out of 6 teams**, recognizing innovation, technical execution, and impact during the hackathon.

LEADERSHIP

Co-Chair of Student Network October 2024 – Present

Artificial Intelligence Saskatchewan (AiSK) Saskatoon, SK

- Lead a **student-driven initiative** fostering an inclusive AI ecosystem for students across Saskatchewan through education and collaboration.
- Organize workshops, speaker events, and projects to build student expertise in both technical (ML, deep learning) and applied AI domains.
- Drive outreach and **community engagement** efforts, connecting students with industry mentors, research opportunities, and interdisciplinary applications.

TECHNICAL SKILLS

Languages: JavaScript, TypeScript, Python, C, Java, C++, SQL, HTML/CSS
Frameworks: Flask, NEXTJS, TailwindCSS, Django
Machine Learning Libraries: NumPy, yfinance, PyTorch, Openscikit-learn, Tensorflow, Keras, torchvision, NLTK
AI Libraries: OpenAI, pyttsx3, Langchain, Generative AI
Developer Tools: Git, VS Code, Pycharm, Intellij, Vim