

# Temi Otun

311 10837 83 Avenue NW | T6E 2E6 | Edmonton Alberta  
(403) -991-6176 | [otun@ualberta.ca](mailto:otun@ualberta.ca) | [Website](#)

## EDUCATION

<b>University of Alberta</b>	<b>Expected April 2027</b>
<i>Bachelor of Science, Major in Computing Science –Artificial Intelligence Specialization</i> Edmonton, AB	
<ul style="list-style-type: none"><li><b>Relevant Coursework:</b> Algorithms I, Machine Learning I, Linear Algebra II, Introduction to the Foundations of Computation II, Practical Programming Methodology, Formal Systems and Logic in Computing Science, Introduction to Applied Statistics II</li><li><b>Awards:</b> Jason Lang Scholarship</li></ul>	

## EXPERIENCE

<b>Machine Learning Intern</b>	<b>January 2025 – August 2025</b>
<i>The Metabolomics Innovation Centre</i> Edmonton AB	
<ul style="list-style-type: none"><li>Enhanced long-range temperature forecasting system, resulting in up to 47% lower MAE with an average 24.3% improvement across a six-year test set compared to previous approaches</li><li>Developed multivariate time series models for precipitation forecasting, incorporating 100+ climate features and outperforming baseline models in 73% of test years</li><li>Assembled forecasting pipelines with advanced feature engineering and benchmarked 20+ ML models, attaining a 42% accuracy improvement over baseline methods</li><li>Automated SQL pipelines to ingest weather and climate data from APIs and web scrapers, generating new feature combinations to support testing and improvement of forecasting models</li></ul>	

<b>Undergraduate Research Assistant</b>	<b>September 2024 – Present</b>
<i>University of Alberta</i> Edmonton AB	
<ul style="list-style-type: none"><li>Contributed to 3 machine learning systems in computational psychiatry and predictive healthcare, including dementia detection and ECG signal modeling on large scale clinical datasets, improving diagnostic accuracy</li><li>Synthesized insights from 40+ research seminars, on survival analysis and disease prediction, applying advanced statistical and ML methods to strengthen ongoing projects</li><li>Documenting and analyzing 15+ ML experiments, applying feature engineering, hyperparameter tuning, and evaluation pipelines to improve performance across classification and regression tasks</li></ul>	

<b>Data Management Intern</b>	<b>January 2024 – May 2024</b>
<i>InfoStrux</i> Vancouver, BC	
<ul style="list-style-type: none"><li>Optimized 25+ SQL queries in Snowflake, reducing execution time by up to 60% and boosting performance of business intelligence dashboards</li><li>Partnered with a senior data engineer to design Snowflake staging and curated layers for 3 datasets; wrote and tuned 30+ queries, improving data reusability and cutting time-to-insight by 40%</li><li>Constructed and maintained 10 database schemas in Snowflake to support diverse data types, improving pipeline efficiency and data flow</li></ul>	

## PROJECTS & RESEARCH

<b>Project</b>	<b>August 2025</b>
<i>Emotion Detection Neural Network</i> <a href="#">Github</a> Edmonton, AB	
<ul style="list-style-type: none"><li>Trained a deep convolutional neural network (CNN) in PyTorch on the FER 2013 dataset (32k+ labeled images), utilizing OpenCV for multi-class facial emotion recognition</li><li>Achieved 70% test accuracy across 7 emotion classes, outperforming baseline models by 15%, and integrated webcam inference to enable real-time emotion detection</li><li>Incorporated preprocessing techniques (grayscale normalization, resizing, augmentation) with RELU activations and batch normalization, to improve model accuracy</li></ul>	

<b>Project</b>	<b>June 2025</b>
<i>Personal Website</i> <a href="#">Github</a> Edmonton, AB	
<ul style="list-style-type: none"><li>Launched a personal portfolio with React and Tailwind CSS, hosted on Vercel with backend email integration on Render, providing a platform showcasing AI/ML and software projects</li><li>Improved user experience with interactive UI features, leveraging Framer Motion, Vanta.js, and React-Scroll for animations and dynamic backgrounds</li></ul>	

<b>Project</b>	<b>January 2025</b>
<i>Lung Cancer Detection</i> <a href="#">Github</a> Edmonton, AB	
<ul style="list-style-type: none"><li>Accomplished a recall score of 99%, accuracy score of 94%, precision score of 95%, and f1 score of 97% on the best classification model</li><li>Built and compared multiple ML models (SVM, k-NN, Random Forest) to determine the most effective classification approach</li><li>Applied preprocessing techniques including SMOTE, and k-fold cross-validation to address class imbalance and improve model performance</li></ul>	

<b>Research</b>	<b>September 2024 – November 2024</b>
<i>Process-2025</i> Edmonton, AB	
<ul style="list-style-type: none"><li>Refined ML models on audio datasets for early detection of dementia and mild cognitive impairment, tackling both classification and regression tasks</li><li>Developed a Random Forest model for the ICASSP 2025 SPGC challenge, achieving accurate patient classification into 3 diagnostic categories with evaluation scores</li><li>Explored self-supervised and pre-trained models from prior research, improving predictive metrics (F1, recall, precision, and RMSE) compared to baseline models</li></ul>	

<b>Project</b>	<b>July 2024</b>
<i>Basketball Chatbot</i> <a href="#">Github</a> Calgary, AB	
<ul style="list-style-type: none"><li>Created a Chatbot in Python connected to a SQL database containing 4800+ NBA players and 30+ teams, enabling queries on player stats, team rosters, and historical data</li><li>Designed a custom interface in SwiftUI alongside Firebase authentication with encrypted credentials, ensuring secure login and data protection for users</li></ul>	

## SKILLS

**Programming:** C, Python, SQL  
**Libraries & Frameworks:** PyTorch, TensorFlow, scikit-learn, NumPy, Pandas, OpenCV, Matplotlib, Darts, Nixtla, React, Tailwind CSS  
**Tools & Platforms:** Git, Linux, Bitbucket, Docker, Snowflake  
**Spoken Languages:** English, Yoruba