# Brian Temu in/brian-temu | bgstemu24@umbc.edu | iam-brian.dev |

Baltimore, Maryland

#### **EDUCATION**

University of Maryland, Baltimore County Master's in Data Science GPA: 3.88

Aug 2023 - May 2025

University of Dar es salaam Bachelor of Science in Computer Science

Nov 2019 - Oct 2022

# **SKILLS**

**Programming Languages:** Python, Javascript, C, C++ and SQL.

Machine Learning: Pytorch, TensorFlow, MLX, Scikit-learn, Pandas, Numpy, Seaborn, and Matplotlib

AI/ML Skills: Large language models fine-tuning, sentiment analysis, neural networks, and feature engineering

Tools: ML flow, Visual Code, Jupyter Notebook, Docker, Git, and Google Colab.

Courses: Algorithms, Big Data, Database Management Systems, Machine Learning, and Artificial Intelligence.

#### WORK EXPERIENCE

# Software Engineer, Softnet Technologies Ltd,

April 2022 - Aug 2023

- Designed and executed new features and enhancements, leading to a 15% improvement in user experience
- Reduced bugs by 25% and improved product quality through collaboration with the product owner.
- Led workshops on Tailwind CSS and Figma, achieving 90% adoption, and saving using external templates.
- Implemented Scrum, achieving 20% more on-time project deliveries with 95% sprint goal success.

#### Machine Learning Engineer Intern, Tanzania Data Lab (dLab)

July 2021 - Sep 2021

- Collaborated with cross-functional teams including software developers and domain experts.
- Researched and evaluated machine learning algorithms that boosted model evaluation by 15%.
- Achieved significant performance improvements by applying transfer learning techniques increase accuracy by 12%
- Expertly collected, cleaned, and transformed image data, ensuring top-quality training datasets that achieved optimal model performance

#### **Software Developer,** *University of Dar es Salaam Innovation Hub*

July 2020- Sep 2020

- Applied responsive design, increased mobile traffic by 50%, and improved overall conversion rates by 20%.
- Innovative UI design led to 40% higher user engagement and a 25% lower bounce rate on the website
- Collaborated with cross-functional teams to conduct usability testing and gather feedback, resulting in the implementation of key improvements

#### **CERTIFICATION**

DeepLearning.AI TensorFlow Developer Professional Certificate, Coursera

March 2023

### ACCOMPLISHMENT

#### Team Leader, Tanzania Data Lab (dLab)

July 2021- Sep 2021

- Automated data preprocessing reduced cleaning time by 50%, improving model training.
- Led a team of 4 people who successfully researched and adapted ideal model configurations for the system.
- Evaluated CNN, RCNN, and YOLO to select an optimal deep-learning architecture.

#### **PROJECTS**

# **Vision Transformer,** Paper Replication

- Identify key components from the paper mainly transformer architecture and attention mechanisms that were translated to modular pytorch code.
- Improve the accuracy by assessing the model performance using various metrics (accuracy, precision, recall etc) that are involved in optimizing the performance through transfer learning.

#### Real-Time Facemask Detection System, Computer Vision

- Proactively optimized models for robust real-world performance in diverse settings.
- Curated a diverse dataset of masked and unmasked individuals, standardizing the model for enhanced performance.
- Explored CNN, RCNN, and YOLO architectures, choosing appropriate deep-learning models by comprehensive research.

#### Baltimore Police Department Crime, Data Analysis

- Gather insight into the increase in crimes by exploring and modeling to identify patterns and trends within the dataset that correlate with the change.
- Verifying the findings by conducting hypothesis testing to validate and draw actionable insight from the analysis.