Brian Temu

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EDUCATION

University of Maryland Baltimore County **May 2025**
Master's in Data Science *Maryland*

University of Dar es salaam **Nov 2019 – Oct 2022**
Bachelor of Science in Computer Science *Dar es salaam*

SKILLS

Programming Languages: Python, JavaScript(TypeScript), C, C++, and SQL.
Machine Learning: Pytorch, TensorFlow, MLX, Scikit-learn, Pandas, Numpy, Seaborn, and Matplotlib.
AI/ML Skills: LLM fine-tuning, sentiment analysis, neural networks, and feature engineering.
Tools: ML flow, Visual Studio Code, Jupyter Notebook, Docker, Git, and Google Colab.
Courses: Algorithms, Big Data, Database Management Systems, Machine Learning, and Artificial Intelligence.

WORK EXPERIENCE

Institute of Genome Science, UMB **May 2024 – Aug 2024**
Data Science Intern *Maryland*

- Leveraged **antiSMASH** to analyze Bacteria Vaginosis gene clusters, uncovering critical biosynthetic patterns linked to recurrent Bacteria Vaginosis.
- Applied **statistical** and bioinformatics methods to uncover genetic markers for targeted Bacteria Vaginosis research.
- Collaborated with researchers to align antiSMASH results with study goals, providing insights that guided the direction of BV research.

Softnet Technologies Ltd **April 2022 – Aug 2023**
Software Engineer *Dar es salaam*

- 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.

Tanzania Data Lab (dLab) **July 2021 – Sept 2021**
Machine Learning Engineer Intern *Dar es salaam*

- Expertly collected, cleaned, and transformed image data, ensuring top-quality training datasets that **achieved optimal model performance**.
- Collaborated with cross-functional teams, including software developers and domain experts, to deliver solutions that improved project efficiency by **20%**.
- 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%**.

PROJECTS

Vision Transformer | *Paper Replication* **December 2023**

- 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 Face-mask Detection System | *Computer Vision* **July 2022**

- Designed a scalable computer vision system using **YOLOv5**, achieving **97%** accuracy in real-world conditions.
- Curated a diverse dataset of masked and unmasked individuals, standardizing the model for enhanced performance.
- Utilized the layout editor to create a UI for the application in order to allow different scenes to interact with each other.

Baltimore Police Department Crime | *Data Analysis* **November 2023**

- 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.

CERTIFICATION

DeepLearning.AI TensorFlow Developer Professional Certificate, Coursera **March 2023**