Ebenezer Tarubinga

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Education

Korea University   Seoul, Korea
M.Sc., Artificial Intelligence   Sept 2023 – Feb 2026
Awards: Global Korea Scholarship *(Sole awardee from Zimbabwe in 2022)*

Experience

Pattern Recognition & Machine Learning Lab   Seoul, Korea
Machine Learning Research Engineer   Aug 2023 – Aug 2025
- Built and deployed novel segmentation models, outperforming baseline models by up to 25% mIoU.
- Collaborated with external industry partners on R&D initiatives, publishing papers and filling a patent.
- Developed object detection and tracking pipelines for autonomous driving applications.
- Led research in key computer vision areas including depth estimation, dense/sparse matching, instance retrieval.

Upwork (Freelance)   Remote
Machine Learning Engineer   Aug 2022 – Aug 2023
- Designed and developed end-to-end ML pipelines like classification models.
- Created and shared open-source projects focused on computer vision tasks.
- Tuned hyperparameters and ran model experiments to increase accuracy & performance.
- Integrated ML models into production-grade systems, collaborating to deploy and maintain systems.

GliT   Hybrid
CTO, Software & AI Engineer   Aug 2022 – Aug 2023
- Led the startup's tech strategy, successfully completing 10+ full-cycle projects on time.
- Utilized deep learning frameworks to build and deploy AI-powered applications.
- Launched Innovation Hub clubs in schools, engaging 250+ students and boosting STEM participation by 35%.
- Drove community tech adoption through partnerships, securing 10+ collaborations and raising uptake by 40%.

Leadership & Activities

Digital Tech Innovation & Cultural Influencer   Sept 2022 – Present
- Built and engaged 200K+ global audience on Instagram/TikTok with content on smart tourism, civic tech, and AI.
- Delivered digital campaigns with 20M+ views, promoting Korea's innovation, culture, and tourism.
- Led tech-driven campaigns with Korean govt. and civic society at the nexus of tourism, culture, and ease of life.
- Promoted digital tools (e.g., mobile tourism, civic apps) to boost public adoption of smart tech and improve life.
- Engaged with African presidents and ministers to explore Korea–Africa collaboration in tech and innovation.

The ESØTËRIC Ones Records   Hybrid
Founder & Chief Technology Officer (CTO)   May 2023 – Present
- Overseeing tech strategy, platform automation, and commercial performance of our digital-first music record label with 18 artists & over 5 million streams worldwide.
- Developed digital distribution strategy across global streaming platforms use algorithmic optimization
- Automated core label operations including royalty tracking, digital marketing, and music analytics.
- Balanced creative direction with technical execution to drive artist growth and commercial success.

Zimbabwean Community in South Korea (ZCSK) Seoul, Korea
Director of Public Relations & Executive Committee Member Apr 2025 – Present
- Led public relations & part of the inaugural ZCSK board, shaping its digital identity and external image
- Developed and launched first full digital strategy across social media, events, and outreach platforms
- Coordinated tech-focused career and education programs with Careers Commissioner for the youth.
- Built strategic partnerships with Korean institutions to support diaspora-led innovation and collaboration

Publications *(as 1ST author)*

CW-BASS: Confidence-Weighted Boundary Aware Learning for Semi-Supervised Semantic Segmentation (link)
International Joint Conference on Neural Networks (IJCNN) 2025
- *#3 global rank on Pascal VOC 2012 (50% labeled) with 77.15% mIoU (Top 10 leading SSSS SOTA on Paperswithcode)*

FARCLUSS: Fuzzy Adaptive Rebalancing and Contrastive Uncertainty Learning for Semi-Supervised Segmentation (link)
Neural Networks*(under review)*
- #2 global rank both Cityscapes and Pascal VOC 2012 (50% labeled) (Top 10 leading SSSS SOTA on *Paperswithcode*)

Patent

REAL-TIME OBJECT DETECTION METHOD, RECORDING MEDIUM AND DEVICE PERFORMING THE SAME* (Korea, KR)
(application filed)

Other Projects

Include but not limited to:
Dual-Embedding Guided Backdoor Attack on Multimodal Contrastive Learning • Semantic-Aware Multi-Label Adversarial Attacks • Self-Training for Semi-Supervised Semantic Segmentation • Scalable Urban Dynamic Scenes • Speech Emotion Recognition • Autoregressive, Controllable & Diffusion based text-to-image generation • Aligning Segment Anything Model to Open Context via Reinforcement Learning • Tool-Augmented Reward Modeling • ASD Classification with Multi-Site fMRI Data • Mutual Correction Framework for Semi-Supervised Medical Image Segmentation • Investigating Why Effective Context Length of LLMs Fall Short?
*for more please see Portfolio

Skills & Interests

Technical: Machine Learning (Advanced)**,** Computer Vision (Advanced), Deep Learning (Advanced), Python. (Advanced), MLOps, Robotics, VLLM, TensorFlow, PyTorch, Docker, Git, Data Analysis, Software Development, CUDA, OpenCV, R&D

Soft Skills: Project Mgt., Operations Mgt., Entrepreneurship, Cross-functional Collaboration, Leadership, Problem Solving, Decision Making, Critical Thinking, Innovation, Agile Methodologies, Stakeholder Communication

Language: English (Fluent), Shona (Native), Ndebele (Native), Zulu (Fluent), Korean (Intermediate)
Interests: Travel, Vlogging, Cricket, Soccer, Music, History

Certificates

IBM Applied AI Professional Certificate • Modern Robotics Specialization - Northwestern University • Foundations of Project Management - Google • Semantic Segmentation with Amazon Sagemaker • AWS S3 Basics - Amazon Web Services • Neuroscience - Emory University • Game Development using Scratch – MIT • ML Pipelines with Azure ML Studio - Microsoft