

**Ebenezer Tarubinga**  
**Artificial Intelligence R&D Engineer**

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## EDUCATION

Korea University, Seoul, Korea Sep 2023 - Aug 2025  
M.Sc. in Artificial Intelligence GPA: 3.78  
Relevant coursework: Probability and Statistics, Calculus, Computer Vision, Big Data Analysis Application and Practice, Advanced Big Data Analysis, Deep Learning, Applications and Practice in Neural Networks, Advanced Reinforcement Learning, AI Safety

## PROFESSIONAL EXPERIENCE

**Pattern Recognition & Machine Learning Lab - Seoul, Korea** Sep 2023 - Jun 2025

A.I. Researcher

- Conducted research on advanced computer vision algorithms and deep learning frameworks resulting in the publication of a paper at IJCNN 2025, a journal under review at Neural Networks and a patent application in Korea.
- Designed and optimized machine learning models for image segmentation, improving model performances by up to 25% from baselines
- Collaborated with interdisciplinary research teams to develop innovative AI-driven project solutions, contributing to the successful completion of 3 major lab project milestones ahead of schedule.
- Attended international conferences and academic forums such as BCI2024, enhancing lab visibility and fostering collaborations.

**GliTech Startup (Global Leaders in African Tech) - Zimbabwe (Hybrid)** Jan 2019 - Jan 2021

Software Engineer & Project Manager (Seasonal)

- Led a software engineering team of 3 members, delivering 5 software projects on schedule and within budget, resulting in a 20% increase in client satisfaction. Implemented process automation tools, improving team productivity by 20%.
- Established Innovation Hub clubs in different schools, fostering technological innovation and collaboration among 250+ students, boosting student engagement in STEM fields by 35%.
- Developed and deployed community-focused technology solutions through effective stakeholder engagement, achieving 4 strategic partnerships with 4 schools that expanded outreach and increased technology adoption by 40%.

## PUBLICATIONS

**CW-BASS: Confidence-Weighted Boundary-Aware Learning for Semi-Supervised Semantic Segmentation** IJCNN 2025

- Conducted advanced computer vision research culminating in a paper publication at IJCNN 2025 and the filing of a patent in autonomous driving in South Korea.
- Architected a new novel semi-supervised semantic segmentation framework, CW-BASS which outperforms fully supervised baselines by up to 25%, increasing segmentation accuracy with limited resources and annotations.
- Streamlined the training pipeline by operating only two networks (teacher and student) and processing 30% fewer unlabeled samples while maintaining state-of-the-art performance under limited-label conditions.

**FARCLUSS Framework for Semi-Supervised Semantic Segmentation** Neural Networks (under review)

- Architected a new novel semi-supervised semantic segmentation framework, FARCLUSS to solve pressing issues in semantic segmentation and improve performance on complex datasets with limited resources and annotations.

## SKILLS

Technical : TensorFlow, PyTorch, C++, Java, Python, Semantic Segmentation, Image and Video Recognition, Pattern Recognition, Linux OS internals, GCC, LLVM, Development tools, CI/CD, Bash scripting, data pipelines, Edge computing, Robotics  
Functional : fostering innovation culture, stakeholder engagement, Conducting pilot studies, prototype development, patent submission, Public speaking, technical presentations, Academic Writing, Agile methodologies, stakeholder management

## CERTIFICATIONS

- Emory University - Biohacking Your Brain's Health; Amazon Web Services (AWS) - AWS S3 Basics; Microsoft - Machine Learning Pipelines with Azure ML Studio; Amazon - Semantic Segmentation with Amazon Sagemaker; MIT - Introduction to Basic Game Development using Scratch; IBM - Unsupervised Machine Learning; Google - Foundations of Project Management; IBM Applied AI Professional Certificate; Northwestern University – Modern Robotics - Specialization

## AWARDS

- Global Korea Scholarship – South Korea Govt; Busan English-Friendly City Activist, Global Influencer – GINCON/Korea Natl. Assembly