Carnegie Mellon University

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SUMMARY

I am an innovative software engineer and master's student in Artificial Intelligence with a strong interest in designing impactful AI-driven solutions. Skilled in integrating advanced software and AI techniques both in research and optimizing processes. I am committed to leveraging my AI skills and expertise towards fundamental and applied research and innovations in the domain of healthcare, robotics and software systems.

EDUCATION

Master of Science in Engineering, Artificial Intelligence *Carnegie Mellon University* Specializations: - Machine learning & Data Science - Applied Computer Vision	August 2024- May 2026
Bachelor of Science (Hons) Software Engineering *ICT University* Specializations: - Software development - Entrepreneurship & Project management	October 2022- May 2024
Higher National Diploma (HND) in Computer Engineering *Siantou University Institute* Specializations: Software Engineering	September 2020- July 2022

PROFESSIONAL EXPERIENCE

Full Stack Software Developer Support *Carnegie Mellon University – Africa, Rwanda* • Leveraging MERN stack to enhancing performance and scalability of https://opportunities.africa.cmu.edu, migrating existing Java backend infrastructures to Node/Express.JS • Developing a web portal for research and internship opportunities for CMU-Africa Masters students.	August 2024 – May 2025
Python Developer (Contract) *Vecademy Institute, Cameroon* • Developed scripts to scrape Telegram group data and automate member addition, reducing manual effort by over 80%. • Enabled efficient management of group memberships by integrating CSV and text file imports.	May 2024 – July 2024
Systems Automation Engineer Intern *ORION Inter-African Insurance and Reinsurance LTD* • Built desktop software with Visual Basic, automating subscription document workflows and insurance data tracking. • Improved operational efficiency, enabling faster data retrieval and better decision-making.	October 2023 – February 2024
CEO, Founder *ESchools LMS, Cameroon* • Led ESchools LMS startup, enhanced student engagement and academic outcomes in Cameroon. • Achieved national recognition in April 2023, winning the Premierdev Tech Innovation Challenge for transformative EdTech solutions.	December 2022 – June 2024

PROJECTS & RESEARCH WORKS
Brain Tumor Detection Application (Project)
ICT University   • Tools & software: Python, Tensorflow, Keras, Kaggle, Jupyter   • Detection of brain tumors in MRI images through Convolutional Neural Networks (CNN), implemented in TensorFlow and Keras with data sets from Kaggle.   • Achieved 98% accuracy in the model, surpassing my previous benchmarks   • Build a web app which enabled brain tumor detection from uploaded MRI images
Healthcare Facility Distribution and Resource Allocation in Rwanda (Research)   *Carnegie Mellon University – (Spring 2025)*   • Analysed healthcare facility distribution in Rwanda (1990–2021) using geospatial analysis and machine learning to address disparities in Malaria, TB, and HIV care.   • Proposed a data-driven model to optimize resource allocation, enhancing accessibility and health outcomes across sub-Saharan Africa.
MindArt AI   *ICT University*   • Tools & software: NodeJS, ExpressJS, Handlebars, GPT-3.5 model   • Build an image generator application transforming text to image using the GPT-3.5 trained model from OpenAI   • Programmed and hosted a user-friendly text to image generator web application, handling data privacy and gender biasness cases in image generation.
Adaptive Behavioral Planning for Autonomous Vehicles in Unstructured Urban Environments (Research)   *Carnegie Mellon University - (Spring 2025)*   • Developed a vision-based system using computer vision (OpenCV, MMDetection, MMAction2) to estimate pedestrian crossing intent in African cities (e.g., Lagos, Kigali), enhancing AV safety.   • Proposed an adaptive framework with a PCB algorithm, leveraging the PIE dataset and real-time probabilistic modelling to improve motion prediction in high-uncertainty settings.
SKILLS & CERTIFICATIONS
• Skills: Problem solving, collaboration, communication, Software, machine learning, deep learning   • Technologies : Python, API, C/C++, JavaScript, Java, Jupyter, Kotlin   • Libraries and frameworks: TensorFow, NumPy, pandas, Open-CV, CMake, Flask, Scikit-learn, GeoPandas, NodeJS, ExpressJS, React, Angular   • Languages: English (Native), French (Advanced)   • Certifications: AWS Cloud foundations, Secure full stack MEAN developer (EC-Council), Project Management (Google), Machine learning Specialization (Stanford)
INTERESTS & ACHIEVEMENTS
• Interest: AI, Machine Learning, Software development, Data Science, Computer vision   • Achievements: Bachelor's degree (Hons) Valedictorian, Cameroon national PremierDev tech award winner 2023, Fellow - ICT University fellowship of excellence