

KOSI ASUZU

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EDUCATION

BSc Computer Science (Technology), Babcock University Aug 2020
GPA: 4.6/5.0 (Final GPA)

MSc Advanced Computer Science, Birmingham City University Jul 2024
Research: Multi-agent reinforcement learning, autonomous agents

SKILLS

Languages	Python, C++, C, ARM assembly (ordered by fluency)
Frameworks	TensorFlow, Pytorch, Jax, OpenCV
Software Design	Distributed Systems, low level software architecture
Tools	Git, CMake, Docker, Kubernetes, AWS

PROJECTS

AI audio book generator python, pytorch, huggingface <https://github.com/asuzukosi/audiobook-generator>

- Built an AI tool to help me generate audio books from pdf files
- Used the Microsoft T5 speech synthesis transformer model (pre-trained)
- Used multithreading to boost performance by splitting into pages for full GPU utilization

Pegasus deep learning framework python, numpy <https://github.com/asuzukosi/pegasus>

- Built a deep learning library from scratch using python and numpy, implemented automatic gradient algorithms, matrix layers and linear models
- Implemented optimization algorithms and loss functions for training the neural networks built with the framework

PINE deep learning utilities package (open source contribution) python, tensorflow, pytorch, jax <https://github.com/asuzukosi/pine>

- Contributed implementation of popular deep learning algorithms such as Deep Q-Networks, Deep Deterministic policy gradient etc.
- Built wrapper class to be able to use any RL algorithm on OpenAI gym using the same API

Kosi-OS operating system kernel c, x86 assembly <https://github.com/asuzukosi/kosios-operating-system-project>

- Built a miniature operating system kernel, planning to extend it to a functional operating system

Jina-AI (open source contribution) python <https://github.com/jina-ai/jina>

- added option on the command line interface to create a deployment project or a flow project for machine learning applications #5756 ([merged](#))

python reinforcement learning projects library OpenAI gym, python, tensorflow <https://github.com/asuzukosi/python-reinforcement-learning-projects>

- Performed experiments on using deep modern reinforcement learning algorithms to solve both discrete and continuous environments such as CartPole, LunarLander, Atari etc.

PROFESSIONAL EXPERIENCE

Lead Software Developer : Ehealth4everyone Feb 2021 - Present *Abuja, NG*

- Achieved 10X speed increase in our REST APIs by optimizing our querying system and changing the serialization package from the default django rest serializer to drf turbo

- Led a team of 5 developers in building and maintaining products (over 10) in the digital health space such as management systems, data analysis and manipulation systems, process control systems etc.
- Developed coding standards and developer guides that improved team efficiency and speed by 40 %

Software Engineer Intern (Embedded Systems) : Microscale Embedded Jan 2019 - Jul 2019 *Abuja, NG*

- Wrote developer documentation for our open IOT APIs that helped increase developer engagement by 20 %
- Conducted training for high school teachers on embedded systems using Arduino
- Developed drone navigation software in embedded C++ that was used to build drones used in company services %