DEREJE SHENKUT

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SUMMARY

Electrical and Computer Engineer with 1+ years of experience in application of machine learning, seeking full-time internship in applied machine learning roles both in academia and industry. I have been developing my skill in this area since my senior undergrad year with the course Machine Learning and Neural Networks by IBM/ Coursera collaboration. I have good programming background and worked on state of the art deep learning algorithms using PyTorch. I am very excited to apply my theoretical knowledge and skills on real world hands-on projects and researches. My interests are working on application of deep learning algorithms for language modelling and computer vision, improving deep learning models using biologically inspired models, and AI for healthcare.

EDUCATION

MSECE (Applied Machine Learning specialization), Carnegie Mellon University

Expected 2021

QGPA: 4.0/4.0

Relevant Coursework:

- Introduction to deep learning
- Data Inference, and Applied Machine Learning
- Applied Stochastic Process

BSc in Electrical and Computer Engineering, Addis Ababa University

2014 - 2019

CGPA: 3.99/4.0 (top of all Engineering graduates)

SKILLS

Technical Skills

Programming Python, MATLAB, C++ and Java

Libraries and Frameworks PyTorch, Scikit-learn, Pandas, Numpy, OpenCV

Machine learning techniques

Traditional machine learning techniques (logistic regression, KNN, K-means, ...)

Deep learning (CNNs, RNNs, GANs and Transformers)

Soft Skills

Strong analytical and problem-solving skills.

Excellent communicator and great listener

Excellent logical thinker and highly adaptable

Good personal skill and highly cooperative in team works.

Persistent and dedicated

Certifications

 ${\bf Machine\ Learning\ Coursera}$

May 2018

Machine Learning with Python IBM-Coursera

Jun. 2019

Neural Networks and Deep Learning Coursera

Sep. 2018

EXPERIENCE

Intern Electrical Engineer

Dventus Technologies

Mar 2018 - Jun 2018 $Addis \ Ababa, \ ET$

- Implemented C-based controller for smart water meter
- Designed PCB using Altium Designer for water meter
- Designed SIMULINK model for simulating control system for smart water meter

Teaching experience: Assistant Lecturer

Jul 2019 - Aug 2020

Addis Ababa University

Addis Ababa, ET

- Taught Control Engineering using MATLAB for undergraduate students. A course with around 80 students per semester
- Developed quizzes, exams, and homework
- Revised the syllabus to meet accreditation standards
- Coordinated grading and labs by myself and school facilities.

PROJECTS

Automatic control railway crossings for Addis Ababa Light Rail, case study project.

- Established the cooperative control model of pedestrian flow based on optimized signals from the controller (Raspberry pi) sent to Servo motor and traffic lights.
- Estimation of number of vehicles on the road using raspberry pi camera, OpenCV library has been used for detection and counting of cars (88.8% accuracy).
- Analyzed load characteristics of the proposed gate for controlling the flow of pedestrians

Style transfer by embedding images StyleGAN2 A project for introduction to deep learning

ACHIEVEMENTS

Gold Medalist: Outstanding Student of the year 2019 from Addis Ababa University with CGPA: 3.99/4.0 (top of all Engineering graduates).

POSCO Africa Fellowship: outstanding scholastic achievement and dedication to knowledge (2016, 2017, 2018)

MCF scholarship: MasterCard Foundation Scholarship at CMU-Africa

2016-2018

2019

2020-2021

VOLUNTEER SERVICES AND MEMBERSHIP

Black In AI:

Member with basic badge 2020 - present

AddisCoder:

AddisCoder is a free intensive 4-week summer coding nationwide training program for Ethiopian high school students.

2017-2019

Summer Volunteering:

Teaching STEM courses for high school students.

2015-2017