

Degaga Wolde

Machine Learning Engineer

About me

A machine learning engineer with two years' worth of relevant work experience developing and using multiple ML models for the healthcare industry. Working knowledge in end-to-end computer vision, natural language processing, and explainable AI projects using technologies like OpenCV, TensorFlow, Scikit-Learn, Flask, PySpark, Kafka, Containerization, and CI/CD tools. Proficient in data preparation, modeling, visual analytics, scalable deployment, and maintenance.

Contact

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Skills

JavaScript, Python, C++, Java, Bash
Postgres, SQL, No-SQL
TensorFlow, Keras, OpenCV, PyTorch
pandas, scikit-Learn, numpy, scipy
TensorBoard, MLFLOW
seaborn, matplotlib, plotly
PySpark, Kafka, Airflow, DVC, Dagster
A/B testing, Model development, Causal graphs
Containerization, Docker, Kubernetes
DevOps, CI/CD, Git Actions
AWS, GCP
Django, Flask, Node Js
React Js, Flutter

Languages

English - Full Professional Proficiency
Afan Oromo - Native Language
Amharic - Professional Knowledge

WORK EXPERIENCE

Computer Vision Engineer

📍 Addis Ababa, Ethiopia

Ethiopian Artificial Intelligence Institute (Feb 2021 - To date)

- Published an article titled "Lightweight Multireceptive Field CNN for 12-Lead ECG Signal Classification" with a 12% increase in the f1 score and with a smaller number of parameters.
- Built a deep learning model with 98% accuracy for detecting Tuberculosis from Chest X-ray.
- Developed an ECG Annotation tool that assisted in automating the data annotation process for a project involving diagnosing heart disease using explainable AI from ECG signals.

EDUCATION

Machine Learning and Data Engineering

📍 Remote

10 Academy (Aug - Nov 2022)

- Building and Deploying ML Model
- MLOps & Continuous Delivery
- Building ELT/ETL pipelines
- Collaboration, and Teamwork

MSc. Computer Engineering

📍 Addis Ababa, Ethiopia

Addis Ababa Science and Technology University (2019-2022)

Principal Courses

- Distributed System, Machine Learning, Cyber Security, Parallel Computing, Random Variable, Stochastic Processes, Computational and Numerical Method.

BSc. Computer Engineering

📍 Addis Ababa, Ethiopia

Addis Ababa Science and Technology University (2015-2021)

Principal Courses

- Object Oriented Programming, Relational Database Management, Applied Mathematics, Data Structure, and Algorithms Design

VOLUNTEER EXPERIENCE

Event Organizing Team Lead

📍 Addis Ababa, Ethiopia


Google Developer Student Club (2020-2021)

- Organized tech-related events, and study jams in which more than 100 students were introduced to Flutter, and Kotlin for android app development.
- Organized hackathon competition in which more than 50 students used their knowledge from the study jam and solved real-world problems.

PROJECTS

- TB Detection from Chest X-ray:** Used a pre-trained U-Net model with 97% dice coefficient and MobileNetV2 with 98% for lung area segmentation and Lung disease classification.
- Customer Clustering:** Used data analysis and clustering to identify consumer experience, engagement, and satisfaction and found that 71% of the customers were satisfied with the service.
- Creative Optimization:** Computer vision algorithms to extract features from creative assets and predict the related KPI performances.
- Entity Extraction and News Artifact Classification:** Applied Large Language Model for extracting entities from job descriptions and classifying news given only a few examples of human scores.

PUBLICATIONS

Degaga Wolde, et al., **Lightweight Multireceptive Field CNN for 12-Lead ECG Signal Classification**, Computational Intelligence and Neuroscience, 
10.1155/2022/8413294