Kaletsidik Ayalew Mekonnen

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📍Arada subcity, Addis Ababa, Ethiopia

SUMMARY

AI and software engineer with 4 years of experience in Python, ML, Data science and Development. Skilled in dataset curation, annotation, and automation for AI model improvement. Experienced in developing research-driven projects involving computer vision, NLP, and data pipelines. Passionate about ensuring data quality and leveraging technology to drive fair, efficient, and intelligent AI systems.

PROFESSIONAL EXPERIENCES

iCog Labs (NAC Team), AI Research Intern 🔗   03/2025 - present | Addis Ababa, Ethiopia

- Contributed to the Predictive Coding-Based Transformer project under the AGI Research Division, focusing on improving GPU compatibility for FlashAttention and optimizing model efficiency.
- Collaborated with the Predictive Coding research group to integrate biological learning principles into transformer architectures.
- Developed and debugged large-scale Python-based systems using NumPy, PyTorch, and CUDA for accelerated computation.

KoderLab Training Center, Student Mentor 🔗   06/2024 - 07/2024 | Addis Ababa, Ethiopia

- Taught Scratch, Python, and HTML to 15 young students, guiding them through creative, project-based learning.

AAU Peace Club, Moderator 🔗   01/2024 - 06/2024 | Addis Ababa, Ethiopia

- Led and mentored group of 15 club members by focusing on how to resolve conflicts.

AAU Tech Club, Vice President & Mentor 🔗   09/2024 - 06/ 2025 | Addis Ababa, Ethiopia

- Organized and delivered a 3-month bootcamp that trained and certified over 30 students in website development.

EDUCATION

Bachelor of Science in Computer Science 🔗   09/2022 - present | Addis Ababa, Ethiopia
Addis Ababa University

- One of top 15 universities in Africa.
- Expected graduation year: June 2026.

Relevant Courses:

Machine Learning for All – University of London 🔗   03/2024 | Coursera

- Learned and implemented regression and classification algorithms, model evaluation techniques, and implemented them using Python.

PROJECTS

Img-Segmentation Studio 🔗   10/2025

- Built a web app for graph-based image segmentation using the Felzenszwalb−Huttenlocher algorithm.
- Implemented adaptive parameter control, real-time visualization, and downloadable segment analytics.
- Tech: Python, Streamlit, NumPy, scikit-image, Matplotlib, Docker

Smart-Housing — AI-Powered Price Predictor 🔗   9/2025

- Developed a full-stack Django app that predicts housing prices using a Linear Regression pipeline.
- Automated model retraining using Celery + Redis and visualized performance metrics via the web UI.
- Tech: Django, scikit-learn, Pandas, PostgreSQL, HTML/CSS

Fire Detection and Tracking Tool 🔗   11/2024

- Created a real-time fire detection system using YOLOv8 with webcam/live feed support.
- Trained on Roboflow datasets and integrated with OpenCV for detection visualization.
- Tech: Python, PyTorch, OpenCV, Ultralytics YOLOv8

SKILL

- **Programming:** Python, SQL, JavaScript, TypeScript, HTML/CSS
- **Frameworks:** Django, Flask, Streamlit, Laravel, PyTorch, Tensof, scikit-learn
- **Tools:** Git, Docker, Redis, Celery, CI/CD, VS Code, Jupyter
- **AI/ML:** Deep Learning, Computer Vision, NLP, Data Annotation, Predictive Modeling
- **Other:** Technical Writing, Research Assistance, Leadership, Mentoring