

Gashaw Demlew Ayalew

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Date of Birth: 1994-01-22 00:00:00 | Gender: Male | Nationality: Ethiopian

Profile Summary

Gashaw Demlew is a seasoned Machine Learning Engineer and Data Scientist based in Addis Ababa, Ethiopia, with over a decade of experience in data science, artificial intelligence, and academic research. With a Master's degree in Data and Web Engineering from Addis Ababa University and a Bachelor's in Computer Science from Jimma University, I have cultivated a robust foundation in leveraging cutting-edge technologies to solve real-world challenges. My career spans roles as a Senior Data Scientist at Kifiya Financial Technology, a co-founder of Talent-shift Technology Hub, and a Lecturer and Researcher at Jimma University, reflecting my ability to blend technical expertise with leadership and innovation. My passion for developing AI-driven solutions that empower communities and businesses positions me as a strong candidate for this promotion opportunity.

Over the past 10 years, I have dedicated more than 4 years to specializing in data science, machine learning frameworks, MLOps, and data pipelines. At Kifiya Financial Technology, I actively participated in a team to develop an Alternative Credit Scoring Model, enabling collateral-free lending for micro-enterprises by leveraging advanced machine learning algorithms and large language models. My contributions included collecting and analyzing alternative data sources, conducting exploratory data analysis (EDA), designing feature engineering pipelines, and implementing MLOps workflows using Kubeflow for data preprocessing, model training, and deployment on AWS Elastic Kubernetes Service (EKS). I also developed FastAPI endpoints to integrate the model into a decision-making platform with robust credit limit and portfolio-risk management. Additionally, I worked on a deep learning project for Unilever, training YOLO10 models for planogram compliance detection and deploying endpoints to optimize sales strategies, showcasing my versatility in delivering business-critical solutions.

During my tenure at Jimma University, I contributed to innovative AI and data science projects with significant social impact. As a data and machine learning engineer, I worked on PolioAntenna, a project focused on enhancing polio surveillance to support underserved communities, and MMDI-KIT, which advanced infectious disease analysis for public health insights. Additionally, as a lead engineer for

MyBlind Reader, I helped develop a mobile solution to empower visually impaired and illiterate individuals by enabling independent access to educational and literary content. These initiatives highlight my ability to apply advanced technologies to address critical societal challenges, reinforcing my commitment to impactful innovation.

My technical proficiency encompasses a wide array of tools and platforms critical for advanced AI and data science applications. I am highly skilled in Python, TensorFlow, PyTorch, and Scikit-learn for machine learning, and I excel in MLOps pipelines using Kubeflow, MLFlow, and AWS SageMaker. My experience with cloud platforms like AWS (S3, EKS, Redshift) and Google Cloud, coupled with expertise in data pipelines (AirFlow, Kafka) and big data tools (Apache Spark, SQL/NoSQL databases), enables me to build scalable, end-to-end solutions. Additionally, my work in natural language processing, computer vision, and data visualization (PowerBI, Matplotlib) equips me to tackle complex challenges, from feature engineering to model deployment and monitoring, ensuring robust and impactful outcomes.

My goal is to advance AI and data science innovations that drive business success and societal progress, taking on greater leadership roles to shape strategic initiatives. This promotion opportunity aligns with my vision to lead high-impact projects, mentor teams, and deliver transformative solutions. My proven track record in managing full machine learning lifecycles, deploying models on AWS EKS, and driving socially impactful projects at Jimma University demonstrates my

Work Experience

Lecturer at Jimma University (2015-07-05 00:00:00 - 2023-08-08 00:00:00)

Location: Jimma, Ethiopia

Responsibilities: Experienced lecturer and academic researcher with a passion for computer science and artificial intelligence. Responsible for teaching undergraduate and postgraduate courses, as well as conducting original research in machine learning and artificial application (such through critical thinking as natural language processing and computer vision) and publishing, in leading journals.

Co-founder & Digital trainer at Talent-shift Technology HUB (2020-04-06 00:00:00 - 2022-12-05 00:00:00)

Location: Jimma, Ethiopia

Responsibilities: As a co-founder, I have served as a digital skills trainer and application developer, creating both web and mobile solutions. With a diverse skillset and entrepreneurial spirit, I have built and grown our organization, driving innovation and making a tangible impact.

Machine Learning Engineer at Kifiya Financial Technology Hub (2023-09-19 00:00:00 - NaT)

Location: Addis Ababa, Ethiopia

Responsibilities: Talented Machine Learning Engineer responsible for developing advanced credit scoring models and predictive analytics at Kifiya

Financial Technology. Applies expertise in machine learning, data mining, and statistical modeling to drive innovation in financial inclusion and improve access to credit for underserved populations.

Education

Master's Degree in MSc in Data and Web Engineer

Institution: Addis Ababa University | Dates: 2016-10-10 00:00:00 - 2023-08-08 00:00:00

Location: Addis Ababa, Ethiopia

Bachelor's Degree in Computer Science

Institution: Jimma University | Dates: 2012-10-10 00:00:00 - 2015-07-01 00:00:00

Location: Jimma, Ethiopia

Skills & Tools

Technical Skills:

Programming Languages: Proficient in Python, Java, and JavaScript for data science, MLOps, and application development.

Machine Learning Frameworks: Expertise in Scikit-learn, TensorFlow, and PyTorch for building and training advanced ML models.

MLOps Pipelines: Skilled in Kubeflow, MLFlow, and AWS SageMaker for end-to-end machine learning lifecycle management, including model training, registry, deployment, and monitoring.

Data Pipelines: Proficient in AirFlow, MageAI, and Kafka for designing and implementing scalable data ingestion and integration systems.

Generative AI: Experienced in RAG pipelines, fine-tuning large language models (e.g., Google's Gemini 1.5), and agentic AI development.

Model Deployment and Monitoring: Expertise in Kserve, Seldon-core, and Evidently for deploying models and ensuring performance in production environments.

Big Data Processing: Proficient in Apache Spark SQL for large-scale data analysis and processing.

Cloud Platforms: Experienced with AWS (S3, ECR, Athena, SageMaker, RDS, EKS, Redshift) and Google Cloud for big data processing, model development, and deployment.

Databases: Skilled in SQL (MySQL, PostgreSQL) and NoSQL (MongoDB) for data storage and querying.

Data Visualization: Proficient in Grafana, Redash, Matplotlib, and Seaborn for creating insightful dashboards and visualizations.

Natural Language Processing (NLP): Experienced in developing NLP solutions, including text extraction and prompting strategies for LLMs.

Computer Vision (CV): Skilled in object recognition (e.g., YOLO10) and image classification (e.g., Visual Transformers) for real-world applications.

Version Control: Proficient in Git for collaborative development and CI/CD integration.

API Development: Experienced in building and deploying FastAPI endpoints for model integration and application development.

Soft Skills

Leadership: Demonstrated through leading the MyBlind Reader project and co-founding Talent-shift Technology Hub, fostering innovation and mentoring teams.

Collaboration: Proven ability to work effectively in cross-functional teams, as shown in collaborative efforts on Kifiya's Alternative Credit Scoring Model and Jimma University projects.

Problem-Solving: Strong analytical skills applied in developing innovative solutions like polio surveillance systems and accessibility tools for the visually impaired.

Communication: Effective in translating complex technical concepts to diverse stakeholders, evident in teaching, research presentations, and client interactions at Kifiya.

Adaptability: Versatile in handling diverse projects, from financial technology to public health and accessibility, across academic and industry settings.

Mentorship: Experienced in training and guiding aspiring technologists, as seen in your role at Talent-shift Technology Hub and as a lecturer at Jimma University.

Strategic Thinking: Ability to align technical solutions with business and societal goals, demonstrated in designing impactful AI systems for micro-enterprise lending and public health.

Languages

English, Amharic

Awards & Certificates

Best Researcher of the year 2015 from Jimma University (2015-05-12 00:00:00)

Description: My final year BSc project, titled "JU Navigator" (an Android based real time navigation application), was honored as the best project of 2015. Consequently, I was recognized as one of the top student researchers by the Jimma University student research committee and received an award.