

Abdulumunim J. Jemal

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Education

Addis Ababa University (Top 10 in Africa)

Bachelor of Science in Software Engineering

CGPA: 3.99/4.00

Relevant coursework: Web Design and Programming, Computer Organization and Architecture, Fundamentals of AI, Fundamentals of Database, Mobile App Development, Object Oriented Programming, Fundamentals of Data Structure and Algorithm Analysis, Fundamentals of NLP

Addis Ababa, Ethiopia

2021 - 2026

Skills

Programming Languages: Python, JavaScript, TypeScript, SQL, Dart, C, C++

Frameworks / Tools: FastAPI, Node.JS, Nest.JS, Redis, GraphQL, RESTful APIs, Microservice Architecture

Testing & Deployment: Jenkins, GitLab CI/CD, Github Action, Jest, Playwright, Terraform, AWS, GCP

Language Skills: English C1, Arabic B2

Experience

Backend AI Engineer

Mood Me

Austin, TX, USA

Aug 2022 – July 2024

- Led the overhaul of an outdated backend system, achieving 80% better response time.
- Partnered with various teams to transition to a modern microservice architecture in FastAPI
- Introduced containerized solutions and advanced transaction management and system health monitoring system, enhancing system scalability and resilience.
- Oversaw the complete backend upgrade, contributing to a 60% increase in quarterly revenue.

Software Engineer

Lesan.AI

Berlin, Germany

Feb 2021 – June 2022

- Directed the development of backend solutions for a translation system using Nest.JS.
- Worked closely with ML teams to design and maintain a high-performance RESTful API for accessing the models, used by over 30,000 customers.
- Implemented optimized database queries, resulting in a 50% improvement in system efficiency.
- Managed key projects for Low Resource Languages backend system, reducing server response time by 40% and increasing client satisfaction by 25% by completing projects ahead of schedule.

Highlighted Personal Projects

PITS (Personalized Intelligent Tutoring System)

- Developed an intelligent tutoring system using LlamaIndex with Retrieval-Augmented Generation (RAG) for personalized educational experiences
- **Tech Stack:** Python, LlamaIndex, RAG, FastAPI, PostgreSQL, Docker, React.
- Achievements:
 - Created adaptive learning paths for students based on their performance data.
 - Achieved 85% satisfaction rate in usability tests.
 - Enhanced engagement and learning outcomes by providing tailored contents such as quizzes for their levels.

PYBE: Modern Python Backend

- Developed a modern backend framework for Python applications to streamline development and enhance scalability.
- **Tech Stack:** Python, FastAPI, PostgreSQL, Docker, Kubernetes, Alembic, AWS, Pytest
- Achievements:
 - Utilized FastAPI and PostgreSQL within a microservice architecture, ensuring efficient and scalable backend service.
 - Developed comprehensive test suites using Pytest and deployed microservices using AWS,