

Timothy Medewase

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EDUCATION

University of Texas

M.S., Computer Science

Arlington, TX

Aug 2026 - May 2028

University of Montevallo

B.S., Computer Science & Mathematics minor — GPA: 3.8/4.0

Montevallo, AL

Aug. 2021 – May 2025

- Relevant Courses: Object-Oriented Programming, Data Structures & Algorithms, Operating Systems, Database Management Systems, Computer Networks, Calculus, Discrete Mathematics, Numerical Analysis, Complex Analysis, Data Analytics & Computing

EXPERIENCE

Software Engineer (AI/ML)

Figbox Technologies, Inc

June 2025 – June 2026

Upper Marlboro, MD

- Developed ML powered backend services supporting 20,000+ active users through data pipelines, inference workflows, and containerized deployments
- Built a natural-language search feature for user profiles by combining spaCy-based text processing with an AI model for query understanding and ranking

Software Development Intern

Solera, Inc

May 2023 – Jul. 2023

Westlake, TX

- Developed a full-stack analytics dashboard with data visualizations for internal reporting and analytics workflows
- Engineered backend data workflows, optimized Microsoft SQL Server stored procedures to reduce query latency by 50%; integrated RESTful API endpoints via Axios and contributed to CI/CD workflows using Bitbucket pipelines

PROJECTS

Deep Research Agent | *Next.js, FastAPI, Python, Chroma, LangChain*

Apr. 2026

- Built a full-stack research agent that decomposes natural-language queries into subquestions, runs iterative tool-calling loops, and synthesizes cited responses using an AI model, supported by constraint-based orchestration enforcing token, cost, and time budgets
- Designed a streaming SSE event system (thinking, tool call, memory hit, answer) with a Chroma-backed vector memory store, enabling real-time visibility into agent reasoning and persistent context reuse across multi-step workflows

OpenBolts | *FastAPI, Next.js, React, PostgreSQL, Docker*

Jan. 2026

- Built an OEM knowledge layer for automotive repair with a hybrid RAG pipeline that ingests manufacturer manuals and delivers page-level citations with sub-500ms average query response time
- Implemented hybrid retrieval scoring, bounded refinement, context rewriting, and web fallback; developed real-time monitoring dashboards and per-phase ingestion tracking for reliable deployment at scale

SCOUR | *Swift, Supabase(PostgreSQL), FastAPI*

Oct. 2025

- Shipped an iOS recruiting app for athlete-coach matching, enabling athletes to browse and filter 15,000+ college programs by sport, division, and location
- Integrated an AI-assisted outreach and CRM backend to manage subscriptions, track coach contacts, generate outreach emails, and synchronize hundreds of athlete and coach records

Transformer Implementation | *Python, PyTorch*

May 2025

- Implemented the Transformer architecture from the ground up in PyTorch with 6-layer encoder-decoder stacks, 8 attention heads, and 512-dimensional embeddings following Vaswani et al
- Developed modular multi-head attention, residual connections, and sinusoidal positional embeddings with configurable depth, width, and head count; optimized attention computations for efficient training and autoregressive decoding

TECHNICAL SKILLS

Languages: Java, TypeScript/JavaScript, SQL, Python (Pandas, NumPy, TensorFlow, PyTorch, scikit-learn), C++, Swift, HTML/CSS

Frameworks/Technologies: React.js, Node.js, Express.js, FastAPI, Django, Spring Boot, LangChain, GitHub, Docker, AWS | **Databases:** PostgreSQL, MongoDB