

AKALEWOLD MAGERA

Full-Stack Software Engineer

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PROFESSIONAL SUMMARY

Passionate Full-Stack Software Engineer with expertise in **React**, **Spring Boot**, and **JavaScript/TypeScript**. Proven track record of building scalable enterprise applications and interactive web solutions. Strong foundation in computer science fundamentals with hands-on experience in modern development practices, performance optimization, and user-centered design.

KEY ACHIEVEMENTS:

- **Harvard CS50 Certified:** Completed prestigious Introduction to Computer Science certification from edX
- Building production-ready **Addis Ababa map application** for deployment in Ethiopia with real-time data and modular architecture
- Developed enterprise-grade management system with **15+ modules** using Spring Boot 3.4 & React 18
- Implemented performance optimizations resulting in **75-85% improvement** in Lighthouse scores
- Built real-time chat applications and interactive games with modern web technologies
- Expertise in full-stack development, from database design to responsive frontend interfaces

CERTIFICATIONS

CS50: Introduction to Computer Science | Harvard University via edX | 2024

Certificate ID: 5a231cb6ff52469597536de19738c337

- Completed Harvard's flagship computer science course covering algorithms, data structures, and programming fundamentals
- Demonstrated proficiency in C, Python, SQL, JavaScript, HTML, and CSS through hands-on projects
- Final project: Interactive Scratch Parrot Game showcasing problem-solving and creative programming skills

🔗 [Verification Link](#)

TECHNICAL SKILLS

Programming Languages:

Java, JavaScript, TypeScript, Python, C, C++, SQL

Frontend Technologies:

React 18, Vue.js, HTML5, CSS3, Responsive Design, PWA

Backend Technologies:

Spring Boot 3.4, Node.js, REST APIs, GraphQL, Microservices

Databases & Tools:

PostgreSQL, H2, SQL, Git, Maven, Vite, Docker, Figma

EDUCATION

Bachelor of Computer Science

Shenyang Institute of Technology | South Korea | Expected Graduation: 2025

Relevant Coursework: Data Structures & Algorithms, Software Engineering, Database Systems, Object-Oriented Programming, Network Programming, Software Testing, Web Development

PROFESSIONAL EXPERIENCE

Full-Stack Developer | Personal Projects

2023 - Present

SERAT Enterprise Management System (Featured Project)

- Architected and developed comprehensive enterprise management system using Spring Boot 3.4.6 and React 18
- Implemented 15+ business modules with modern architecture patterns and enterprise-grade functionality
- Utilized Java 17 LTS, Spring Security, JPA/Hibernate for robust backend development
- Created responsive frontend with React 18 and modern JavaScript for optimal user experience

Technologies: Spring Boot, React, PostgreSQL, Java 17, Spring Security

Real-Time Chat Application (AKMessage)

- Developed interactive chat application with real-time messaging using Flask & SocketIO
- Implemented user authentication, message persistence, file sharing, and voice messages
- Built responsive interface supporting private and group conversations

Technologies: Flask, Flask-SocketIO, SQLAlchemy, JavaScript

Addis Ababa Interactive Map Application (In Development - Private Repository)

- Building production-ready, mobile-first map application for Ethiopia with modular data management system
- Implementing GeoJSON-based data upload system for restaurants, events, traffic data, and geotagged images
- Developing real-time traffic monitoring and live weather integration with professional UI
- Creating versioned data management system with automatic change tracking for public deployment
- Features smart search functionality and Ethiopian cultural context integration for nationwide use

Technologies: JavaScript, GeoJSON, Mobile-First Design, Real-time APIs, Cloud Storage, Production Deployment

Spring Boot Todo Application

- Built full-stack todo management system with user authentication and CRUD operations
- Implemented Spring Security, Spring Data JPA, and H2 Database integration
- Created intuitive JSP-based UI with comprehensive task management features

Technologies: Spring Boot, Spring Security, JPA, H2 Database, Maven, JSP

ADDITIONAL PROJECTS

Addis Ababa Interactive Map Application (2025 - In Development)

- Building comprehensive map application for Ethiopia with modular data management for public deployment
- Features: GeoJSON file uploads, geotagged images, real-time traffic/weather, smart search
- Developed with mobile-first responsive design and Ethiopian cultural context integration
- Implementing versioned data updates and cloud-ready architecture for nationwide deployment in Ethiopia
- Currently in private development repository, preparing for production launch

Technologies: JavaScript, GeoJSON, Mobile APIs, Real-time Data, Cloud Storage, Production Deployment

Performance-Optimized Portfolio Website (2024 - Present)

- Developed professional portfolio with advanced performance optimizations
- Achieved 75-85% improvement in Lighthouse performance scores through strategic optimizations
- Implemented service worker caching, lazy loading, code splitting, and modern PWA features

Technologies: React, Vite, Service Workers, Performance Optimization, PWA

Scratch Parrot Game (CS50 Final Project)

- Created interactive game as final project for Harvard's CS50 Introduction to Computer Science
- Demonstrated advanced problem-solving skills and creative programming approaches using Scratch
- Showcased understanding of programming fundamentals, loops, conditionals, and game logic

Technologies: Scratch Programming, Game Development, Algorithm Implementation

TECHNICAL ACHIEVEMENTS

Performance & Optimization

Web Performance Expert: Reduced Time to Interactive from 179.8s to <5s through strategic optimizations. Implemented advanced service worker caching strategies and enterprise-level security headers.

Development Best Practices

Harvard CS50 graduate with expertise in component-based architecture, state management, clean code practices, and continuous learning of latest technologies.

Portfolio: akalewold.com | GitHub: [@AKXtreme](https://github.com/AKXtreme) | Available for full-time opportunities