

Jesse Chumo

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Profile

Software Engineer with experience in backend and full-stack development, CI/CD pipelines, and secure authentication. Passionate about delivering scalable, high-quality software and eager to contribute to software engineering roles.

Education

MS Computer Science, University of Texas at Arlington

August 2024 — December 2026

- Graph Neural Network (GNN) Research at UTA Cyber-Physical Systems Security Lab.

BS Information Technology, Kabarak University

May 2018 — December 2021

- GDG (Google Developer Groups) member

Professional Experience

Systems Administrator, University of Texas at Arlington

August 2025 — Present

- Support academic and research environments by assisting with CI/CD tools, version control, and environment setup, enabling smoother student project deployments.
- Manage CI/CD pipelines, improving deployment efficiency and reliability by 20%.
- Develop and maintain the School of Engineering intranet, enabling 1,000+ staff and students to access critical information seamlessly.
- Facilitate security lab practicals, reducing student blockers by 30% and improving lab completion rates.

Graduate Teaching Assistant, University of Texas at Arlington

January 2025 — August 2025

- Conducted office hours and tutoring sessions for the Algorithms course, directly contributing to a 15% improvement in average student performance.
- Graded and provided detailed feedback on programming assignments and code labs, reducing recurring errors and improving code quality by 20%.
- Facilitated debugging sessions and code reviews during one-on-one and group meetings, resulting in an enhanced student satisfaction rating of 90% based on student feedback.

Full Stack Developer, Fasi Health, Remote Nairobi

August 2023 — August 2024

- Developed a secure authentication system using AWS Cognito, ensuring seamless and secure authentication, reducing login-related support tickets by 30%.
- Created a Continuous Integration/Continuous Deployment (CI/CD) from GitHub Actions to AWS Elastic Beanstalk that ensured seamless, automated deployment, reducing deployment time by 50% and minimizing human errors during production releases.
- Created a GraphQL API that allowed for seamless integration with the backend.

Front End Web Developer, Fameve, Remote Nairobi

November 2022 — July 2023

- Implemented automated testing that achieved 91% code coverage, significantly reducing production issues by 60% and improving system reliability, resulting in faster bug detection and resolution during development cycles.
- Created custom directives to manipulate DOM elements and extend component functionality, improving application responsiveness and reducing frontend code redundancy by 25%.
- Optimized user experience on our e-commerce platform by enhancing page load times through efficient DOM manipulation, leading to a 20% increase in customer retention.

Software Development Intern, JamboPay, Nairobi

May 2022 — November 2022

- Supported the development of a new messaging platform using NestJS, enabling real-time customer notifications through emails and SMS, which improved customer engagement rates by 30%.
- Wrote optimized SQL queries to generate detailed reports for the admin dashboard, providing management with actionable insights into sales trends and helping identify opportunities for revenue growth.
- Monitored and tested systems to proactively identify and resolve downtime issues, achieving a 99.9% system uptime and ensuring a seamless user experience.
- Streamlined report generation processes, reducing data retrieval time by 40% and enhancing decision-making speed for the management team.

Technical Skills

Javascript, Typescript, React, NodeJS, NestJS, GraphQL, React Native, MongoDB, MySQL, Testing, Git, Linux, C, AWS, Python, Docker, HTML, CSS

Projects

air-nbo, <https://nairobi.go.ke/nairobi-air-quality>

A web app for Nairobi County Government showing the air quality of different points in Nairobi using data from IOT devices.

RescueBites, <https://github.com/jessechumo/RescueBites>

RescueBites is a cross-platform mobile app built with React Native that bridges the gap between food donors and people in need by redistributing surplus food in real time. The app aims to reduce food waste while fighting hunger through a community-powered system.