

JESSE CHUMO

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EDUCATION

University of Texas at Arlington

Master of Science in Computer Science

– Thesis: Evaluating the Robustness of GNN Vulnerability Detectors Under Code Obfuscation

Arlington, TX

Aug 2024 – May 2026

Kabarak University

Bachelor of Science in Information Technology

Nakuru, Kenya

2018 – 2021

TECHNICAL SKILLS

Languages: Python, TypeScript, JavaScript, SQL, C/C++

Backend: Node.js, NestJS, REST APIs, GraphQL, Prisma, Authentication, Payment Integrations

DevOps & Infrastructure: Docker, CI/CD, GitHub Actions, AWS, Elastic Beanstalk, S3, Cognito, Linux, RHEL, Git

Databases: PostgreSQL, MySQL, MongoDB, Query Optimization, Data Modeling

AI & Platform: LangChain, LangGraph, RAG, VirtualBox

Frontend: React, React Native, Angular, Expo

Concepts: Distributed Systems, Algorithms, System Design, Observability, SDLC, Debugging

EXPERIENCE

Systems Administrator

University of Texas at Arlington

Arlington, TX

Aug 2025 – Present

- Managed VirtualBox lab environments on RHEL hosts supporting Windows, Fedora, and Kali Linux VMs and their snapshots for hands-on cybersecurity instruction, enabling reliable and repeatable student security experiments.
- Owned and maintained Linux-based lab infrastructure and two department RHEL production servers supporting 1,000+ users, diagnosing virtualization and software issues to ensure stable service delivery for students, faculty, and researchers.
- Designed and deployed an AI experimentation lab using RAG, LangChain, and LangGraph, enabling students and researchers to run LLM experiments on applied AI workflows.
- Built Python tooling to automate software provisioning and installation workflows across lab machines, eliminating repetitive manual setup and improving consistency across environments.

Full Stack Developer

Fasi Health

Remote

Aug 2023 – Aug 2024

- Built and maintained full-stack features across patient, driver, and admin workflows using NestJS, TypeScript, React, GraphQL, and PostgreSQL, supporting core business operations in a production healthcare platform.
- Developed a React Native/Expo mobile app for a ride-hailing service, translating UI designs into functional screens and integrating REST and GraphQL APIs for real-time data flow.
- Engineered backend infrastructure including NestJS services, GraphQL resolvers, Prisma migrations on a Dockerized PostgreSQL database, AWS Cognito for authentication, S3 for document and media storage, and payment platform integrations.
- Built CI/CD pipelines with GitHub Actions and AWS Elastic Beanstalk, reducing deployment time by 50% and improving release reliability.
- Contributed to Agile delivery through sprint planning, code reviews, and merge request approvals, supporting consistent and reliable feature releases.

Front End Web Developer

Fameve

Remote

Nov 2022 – Jul 2023

- Reduced production issues by 60% by implementing automated testing and improving code quality in an Angular-based e-commerce platform.
- Developed modular React and Angular components for core e-commerce workflows, consuming REST APIs for data rendering and collaborating with backend engineers to ensure reliable end-to-end feature delivery.

Software Development Intern

JamboPay

Nairobi, Kenya

May 2022 – Nov 2022

- Built REST API endpoints for a fintech payment platform using NestJS, supporting transaction processing workflows in a production environment.
- Designed and optimized SQL queries to surface transaction data for admin reporting, improving operational visibility into payment workflows.