

Prince Niyonkuru

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EDUCATION

Texas Tech University | GPA: 3.83

Bachelor of Science in Computer Science, Minor in Mathematics

Lubbock, TX

August 2021 – May 2025

EXPERIENCE

Undergraduate Research Assistant

September 2024 – July 2025

Texas Tech University

Lubbock, TX

- Investigated file encryption detection using metrics like entropy, byte frequency, and statistical anomalies.
- Trained a Convolutional Neural Network (CNN) to classify encrypted files using images generated from file byte-frequency data.
- Tested and refined algorithms to distinguish between encrypted and non-encrypted files, aligning with rigorous quality standards.

Freelance Software Developer

May 2024 – August 2024

Chako Ni Changu Event Rentals

Lubbock, TX

- Developed a custom website for an event rental business, projected to increase online traffic by 50%
- Built responsive UIs using React, Next.js, and Tailwind CSS, enhancing user engagement
- Designed a robust database using Prisma, with an admin panel providing owners full control over inventory, bookings, and customer data

Software Developer

September 2024 – December 2024

Texas Tech University Health Sciences Center

Lubbock, TX

- Collaborated within a focused scrum team of three to build a Urinalysis/Body Fluids dashboard serving 1,000+ students with integrated SQL database backend.
- Developed a simulator to train Medical Laboratory Science students on hospital pathology lab software, featuring functionalities for entering and validating Urinalysis/Body Fluids results using quality control measures
- Developed an encrypted database with authentication functions for secure data storage and user interaction

PROJECTS

Collabo - Collaborative Code Editor | *React, NextJs, WebRTC, YJS, Git*

September 2025 – October 2025

- Built a real-time collaborative code editor using Monaco Editor and Yjs (CRDT) to synchronize live edits between multiple users with conflict-free consistency
- Integrated WebRTC peer-to-peer connections with a custom signaling server hosted on Render, enabling decentralized document sharing and low-latency collaboration.
- Enabled secure multi-language code execution via the Piston API directly in the browser

Apex Autos Database Manager | *MySQL, Python, Streamlit, Git, Github*

March 2024 – May 2024

- Led the development and implementation of a robust database system for Apex Autos, improving data management and real-time access to customer information, transaction records, and inventory data
- Designed and optimized database schemas for better data integrity and scalability
- Created advanced queries and reports for insights into customer preferences and sales
- Integrated the database with a user-friendly interface using Streamlit and MySQL Connector

Elevator Scheduler Program | *C++, CURL, Thread, Git, Github*

April 2024 – May 2024

- Implemented a First Come First Serve scheduling algorithm, optimizing elevator system efficiency by reducing average wait times by 30% for up to 50 concurrent users
- Enhanced scheduling accuracy by 25% through multithreading, enabling real-time decision-making and smooth task execution
- Integrated CURL for API communication, handling up to 100 requests per minute, with secure thread synchronization via mutexes to prevent race conditions

TECHNICAL SKILLS

Programming: Java, Python, C/C++, C#, SQL, JavaScript, TypeScript, HTML/CSS, Bash

Frameworks & Tools: React, Node.js, Next.js, Material-UI, TailwindCSS, ASP.NET, Docker, AWS, Azure, CI/CD

Data & ML: Pandas, NumPy, Matplotlib, Tensorflow, Pytorch

Development: Visual Studio Code, Linux, Docker, RESTful APIs, Version Control, Object Oriented Programming