

Tadiwanashe Nyamapfene

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Rust College

Bachelor of Science in Computer Science: 3.95 GPA

Affiliations & Awards: ColorStack, Code2040, CodePathxBASE10 Scholarship, Data 4 Black Lives Scholarship

Holly Springs, MS

Expected: December 2026

EXPERIENCE

Manufacturing Execution Systems Intern

June 2025 – August 2025

Amplify Cell Technologies

Byhalia, MS

- Designed an offline Retrieval Augmented Generation (RAG) pipeline with Ollama and Chroma DB, indexing 500+ internal documents (PDFs, logs) to provide instant answers for manufacturing teams, reducing lookup time by 70%
- Supported deployment and optimization of manufacturing systems (MOM/MES, SCADA & SAP) through collaboration with engineers and IT teams and coordinated cross-functional project milestones

Machine Learning Intern

June 2024 – August 2024

Tufts University

Medford, MA

- Built an image classification model using TensorFlow/CNN to distinguish over 30 classes of data, achieving 90.14% accuracy on 10,000 images
- Optimized preprocessing pipeline, reducing training time by 20% through layer optimization and leveraging GPUs
- Compared Traditional ML vs. Optimal Transport methods, proving a 15% higher accuracy with traditional ML

Software Engineering Fellow

July 2024 – August 2024

Headstarter AI

Remote

- Developed full-stack AI apps using React, Next.js, and Firebase, implementing CI/CD practices, and deployed to 500+ users
- Led a team of 3 to develop an interactive customer support agent using Next.js, OpenAI, and RAG, reducing response time by 40%
- Created an adaptive flashcard application that improved user retention by 30% through dynamic difficulty adjustment

PROJECTS

Secure Auth Microservice | Next.js, MongoDB, JWT, Docker

May 2025 – June 2025

- Engineered a high-performance authentication service capable of handling 10,000+ concurrent users
- Implemented a JWT-based auth with Next.js supporting OAuth, email/password, and security, reducing theoretical attack surface by 60%

Note Scriber | Next.js, Java, Clerk, MongoDB, OpenAI Whisper & GPT-4

Aug 2025 – September 2025

- Built a full-stack app with Java/Spring Boot backend that transcribes audio via Whisper and generates GPT-4 summaries, boosting note-taking by 70%
- Built microservices that process files, run Python AI inference, optimizing APIs, cutting latency by 40%
- Integrated Clerk authentication with MongoDB to protect sensitive user data ensuring reliable and private access to user information

Smart Pantry | Next.js, React, Material UI, Firebase, OpenAI, Vercel

May 2024 – July 2024

- Developed a full-stack grocery management platform serving 100+ users, integrating OpenAI for personalized recipe suggestions based on available ingredients
- Implemented Firebase Firestore for real-time data synchronization and perishability-based alerts, reducing duplicate purchases and food waste by 25%
- Designed RESTful APIs for inventory management, reducing response time by 20% through optimized database queries

TECHNICAL SKILLS

Languages: Java, Python, SQL, JavaScript, HTML/TailwindCSS

Frameworks: React/Next.js, Node.js, Flask, Django, Material-UI, FastAPI

Developer Tools: Git, Docker, AWS, Terraform, CI/CD, Vercel, MongoDB, Agile Methodologies, Firebase, Ollama, n8n