

# Chibuike Maduabuchi - Software Design Engineer

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Design Engineer specializing in Next.js, React, and TypeScript, building production-ready web applications end to end. Strong at bridging design and engineering through UI systems, accessibility, UI interactions and animations, with deep experience in performance optimization.

## WORK EXPERIENCE

### FREELANCE

#### Software Design Engineer

Remote - Enugu, Nigeria  
December 2024 - Present

- Designed, built and shipped production web applications end to end using Next.js with React Server Components (RSC) and Typescript, supporting complex user workflows for fintech, ecommerce and healthcare products.
- Built durable front end infrastructure using SSR, SSG, streaming, and smart caching, improving load times by 20 percent plus and maintaining sub 1.2s initial load on low bandwidth devices.
- Led design and implementation of accessible, responsive interfaces using Figma, Tailwind CSS, and Framer Motion, increasing user engagement by 25% through clear hierarchy and smooth micro interactions and animations.
- Implemented complex interactive systems including dashboards, filters, modals, and real-time validation using React Hooks and Zustand, reducing UI latency by 30%.
- Integrated and managed backend data efficiently with TanStack Query, achieving faster data fetching and zero loading flickers through smart caching and background synchronization.
- Implemented secure authentication with Better Auth and managed data persistence using Neon, Supabase, and Drizzle ORM, enabling reliable sessions, safe schema migrations, and efficient data access.

### KULIPAL TECHNOLOGIES LIMITED

#### Product Designer

Remote - Lagos, Nigeria  
January 2024 - May 2025

- Conducted in-depth user research through interviews, surveys, and usability testing sessions, uncovering key user pain points and behavior patterns that directly informed design decisions.
- Created interactive prototypes in Figma, rapidly iterating on user flows and interface elements based on feedback from both users and stakeholders.
- Worked hand-in-hand with frontend developers to ensure high-fidelity implementation, maintaining visual consistency and responsive behavior across devices.
- Designed and tested mobile-responsive layouts for core web app features, optimizing for performance and usability across different screen sizes and devices.

## SELECTED PROJECTS

[\(Demo Videos\)](#)

### MEDIBRIDGE - AI HEALTHCARE DATA PLATFORM

- Designed and engineered an AI-driven healthcare data system using Next.js and the Vercel AI SDK to convert unstructured medical records from PDFs and scanned documents into structured, clinician-ready patient profiles.
- Built document ingestion and parsing pipelines that leverage AI-assisted extraction to identify key clinical data and expose it through searchable, usable interfaces optimized for clinical workflows.
- Implemented authentication and authorization with Better Auth, ensuring role-based access and data isolation across hospitals.
- Built the full backend using Neon (Postgres) and Drizzle ORM, implementing secure data models, queries, and persistence for patient records.

### AI FORM BUILDER

- Built a natural language driven form builder that converts prompts into structured UI schemas and renders production-ready, accessible forms at runtime.
- Implemented with Next.js and React, with a backend powered by PostgreSQL and Drizzle ORM for schema storage, versioning, and form persistence.

### EMAIL AGENT

- Built an AI powered email automation workflow that parses emails, classifies them, drafts replies and supports a human in the loop approval step before sending.
- Implemented with Next.js and the Vercel AI SDK using ToolLoopAgent, with custom tools for parsing, replying and sending. Includes an approval flow and structured output handling for reliable multi step automation.

### AI-TRANSFORM - BROWSER EXTENSION

- Built a browser extension that extracts live webpage content and transforms it into structured, schema-validated summaries using AI.
- Implemented an end-to-end pipeline with an Express API, Zod schemas, and Vercel AI SDK to generate executive, detailed, or technical summaries, then rendered them in a clean React UI with local caching and offline recall.

## EDUCATION

### BACHELOR OF ENGINEERING - CIVIL ENGINEERING

University of Nigeria, Nsukka

### UI/UX DESIGN COURSE

Checklearn Batch (Experienced)

## SKILLS - ENGINEERING

User Interface Engineering

Component-Based Architecture

Responsive Design

State Management

Performance Optimization

Website & Web App Development

Software Testing & Debugging

Accessibility

Version Control

## CORE TECHNOLOGIES & TOOLS - ENGINEERING

HTML

CSS(SCSS)

Tailwind CSS

CSS Modules

CSS-in-JS

JavaScript

TypeScript

React

Next.js

Framer Motion

Context API

TanStack Query

SWR

Zustand

Redux

Node.js

Express

Git

Sqlite

Postgres

Supabase

Neon

Firebase

Web Sockets

Unit Testing

PWA

SEO

## SKILLS - DESIGN

User Research

Information Architecture

Wireframing

Prototyping

User Experience Design

User Interface Design

Product Design

Visual Design

Interaction Design

## TOOLS - DESIGN

Figma

Adobe Illustrator

Adobe Photoshop

Webflow

Framer

## CERTIFICATIONS

JavaScript Essentials 1 (JSE) by Cisco Networking Academy in collaboration with OpenEDG JavaScript Institute ([Link](#))

JavaScript Essentials 2 (JSE) by Cisco Networking Academy ([Link](#))