

Emmanuel Noi

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Senior Frontend Engineer

Software Engineer focused on frontend development, testing, problem-solving, and user-centered design. Strong communicator, self-motivated, and committed to learning modern technologies and building reliable, scalable products.

WORK EXPERIENCE

Independent **01/2023 - Present** **Software Engineer – Product Engineering Founder & Engineer**

- Built frontend systems with Angular, React, TypeScript, and reusable component architecture, aligning product decisions with maintainable state, rendering, and data-layer boundaries.
- Implemented automated quality gates across unit, integration, end-to-end, and accessibility testing, maintaining 1,300+ tests across products, including 604 total tests for GlobePlay and 760+ for Talliofi.
- Delivered measurable engineering outcomes including sub-millisecond country selection and 60fps interaction / 0fps idle in GlobePlay, cross-browser editor validation across six Playwright targets in Richtext2Markdown, and fully offline planning workflows in Talliofi.
- Architected and shipped three production web applications end-to-end: GlobePlay, Richtext2Markdown, and Talliofi, spanning interactive 3D learning, accessibility-first content conversion, and local-first financial planning.

Servo-Robot Inc. • Fairfield University **02/2020 - 05/2023** **Software Developer / Team Lead**

Fairfield, CT · Remote

- Built analytics dashboards that turned complex weld data into real-time operational insights, improving team decision-making efficiency by 25%.
- Designed an Angular and Node.js processing workflow that transformed large industrial inspection exports into normalized data for interactive analysis.
- Led a 5-person engineering team to deliver a proprietary weld-inspection analytics application, translating domain-heavy requirements into execution milestones and shipping within 6 months.

MarkNet Group **05/2017 - 01/2020** **Software Developer**

Danbury, CT · Hybrid

- Improved consumer and B2B web properties by redesigning and refining frontend experiences, driving a 40% increase in accessibility and performance within 6 months.
- Established cross-browser testing practices that surfaced UI inconsistencies earlier and improved overall user experience across client properties.
- Built HTML email campaigns and event microsites with registration workflows and reporting support, contributing to a 40% increase in email open rates.

TV3 Network Limited **06/2014 - 11/2016** **Jr Frontend Software Developer**

Accra, Ghana

- Led frontend development for the corporate website redesign and rebuild, coordinating implementation through backend integration and launch readiness.
- Managed the end-to-end website migration, including DNS setup, content transfer, redirect mapping, and post-launch validation, helping drive a 30% increase in customer engagement.

EDUCATION

Master of Science (M.S.), Computer Software Engineering

Fairfield University

Fairfield, CT • 01/2020 - 05/2022

Master of Professional Studies (M.P.S.), Design Management

University of Bridgeport

Bridgeport, CT • 09/2016 - 12/2018

Bachelor of Arts (B.A.), Design

University of Science and Technology (KNUST)

Kumasi, Ghana • 08/2010 - 05/2014

CERTIFICATIONS

React: Design Patterns

LinkedIn Learning

01/2023

Enterprise Design Thinking Practitioner

IBM

01/2022

Design Kit: The Course for Human-Centered Design

IDEO U

01/2021

PROJECTS

GlobePlay

Built a production-grade 3D geography platform that renders 241 countries with GPU-optimized selection, 60fps WebGL interaction / 0fps idle, and CI quality gates covering 604 total tests, including 487 blocking tests.

Talliofi

- Designed a local-first personal finance architecture with Dexie and IndexedDB as the source of truth, keeping core budgeting and planning workflows fully offline by default.
- Implemented repository-strategy boundaries for local, direct-cloud, and encrypted-cloud storage modes, protecting feature modules from sync-tier complexity while supporting 760+ automated tests.

Richtext2Markdown

Built an accessibility-first rich text to Markdown converter with service-led editor orchestration, deterministic conversion logic, and import/export workflows validated across Chromium, Firefox, WebKit, Edge, Mobile Chrome, and Mobile Safari.

SKILLS

Programming: CSS3, HTML5, Java, JavaScript (ES6+), SQL, TypeScript

Frameworks and Libraries: Angular (14+), Angular Signals, Dexie, Hibernate, JPA, Node.js, OnPush Change Detection, React, RxJS, Spring Boot, SSR/Prerendering, Standalone Components, Tailwind CSS, TanStack Query, Three.js, WebGL, Zustand

Backend and APIs: API Testing, Application Integration, Microservices, RESTful API Development, Server-Side Architecture

Databases: MongoDB, MySQL, PostgreSQL

Cloud and Infrastructure: AWS, CI/CD (GitHub Actions), Docker, Supabase

Tools and Platforms: Agile/Scrum, axe-core, Code Review, DNS Management, ESLint, Git, GitHub, JIRA, Playwright, Vite, Vitest

Testing: Accessibility Testing, CI Quality Gates, Cross-Browser Testing, End-to-End Testing, Integration Testing, Test Automation, Unit Testing

Engineering Concepts: Component-Driven Development, Design Patterns, Frontend Architecture, MVC, OOP, Performance Optimization, SDLC, State Management, UAT