Jean Greeff

PORTFOLIO

Senior Frontend Engineer (Full Stack-Capable)

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LIST OF INDUSTRIES

I have serviced and architected software for clients in the following industries

The following case studies reflect my hands-on architecture and development work, delivered while employed full-time at New Media Labs.

Due to confidentiality agreements, client identities, sensitive information, and proprietary certain interfaces have been omitted or abstracted.

01 ENGINEERING

02 FINTECH

03 STORAGE SECTOR

aurecon

project ENGINEERING

Award wining Australian engineering, project management and consulting company, boasting II global locations and over 7000 employees.

01 UI Development

Boosted brand credibility, identity and user engagement

02 Performance & SEO

Increased site traffic, improve user experience and site ranking

03 TDD and Tech Support

Reducing production errors and maintenance budget

04 Software Migration

Transform a legacy product with industry leading, cost effective technology

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01 UI Development

Boosted brand credibility, identity and user engagement

- Collaborated with clients design and digital marketing specialist to execute a site-wide rebrand.
- Codebase migration with new content blocks and templates and respective integration.
- Delivered a configurable CSM integration, essentially moving the client from a static page site to highly interactive web app delivering the final product in React 18 and enhanced by Framer Motion animations.

02 Performance

Improved user experience and site ranking

- Enhanced product Web Vitals and site-wide performance by generating actionable insights via Google Lighthouse.
- Optimised GPU-intensive animation, created web-workers for CPU intensive scrolling features and implementing code splitting (lazy loading) strategies, resulting in measurable speed gains and site rank stability.

03 TDD

Reducing production errors and maintenance budget

- By leveraging Storybook's robust UI development environment, I streamlined team collaboration while implementing a comprehensive automated regression testing suite.
- Significantly reduced production bugs and established a living reference library for all product UI components. Resulting in faster feature development cycles and reduced long-term maintenance costs for the client.

04 Software Migration

Transform legacy product with industry leading, cost effective technology

Architected the migration of an MVC template codebase to a modern React/Vite codebase , delivering:

- Reduced development and maintenance costs through Reacts modular component architecture, accelerating feature delivery.
- Enabling advanced functionality with cutting-edge React 18, TypeScript, and Node.js integrations, future-proofing the platform for evolving business needs.
- Implemented a content management upgrade with new APIs, reinforcing consistent branding and offering granular control of templates.
- Modernizing the tech stack by consolidating fragmented MVC frontends into a unified React codebase, improving performance and scalability.
- Fully CMS-integrated web app, reducing time-to-market for new features and campaigns, boosting developer and editor efficiency.

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05 Solutions Architect

Fostering long term relations and client satisfaction

Leveraging React and web development expertise, I've delivered a competitive and superior product by:

- Eliminating performance bottlenecks—speeding up user experiences and retaining user attention.
- Solving complex, bespoke feature challenges—turning creative ideas into scalable, high-performance solutions.
- Squashing elusive bugs.

No challenge was too big—every project was delivered with technical precision, commitment, and a focus on client satisfaction.

06 CI Architect

Providing robust and cost effective CI solutions

By moving some CI processes onto local development machines I have:

- Improved delivery turnover time.
- Reducing data processing demand on pipeline environments.
- Leveraged pre-commit hooks that run on commit which runs:
  - Production Builds and integrated linters.
  - Visual regression test suites with Chromatic .
  - Interaction test in Storybook.

NEDGROUP INVESTMENTS

project FINTECH

Multi national, mid-sized asset manager, subsidiary of financial giant, making R1.2 trillion in annual revenue in 2023, and listed on the JSE exchange

01 **SEO Consulting**

Boosting user engagement and site visibility

02 **Technical training**

Establish client independence and maximum editor productivity

03 **Software Migration**

Converting legacy to modern Full Stack frameworks

Multi national, mid-sized asset manager, subsidiary of financial giant, making R1.2 trillion in annual revenue in 2023, and listed on the JSE exchange

01 SEO Consulting

Boosting user engagement and site visibility

- Conducted a full SEO audit on a bloated website to identify key weaknesses and opportunities.
- Trained and mentored my development team on core SEO principles, best practices, and technical optimisations.
- Increased ranking performance from 50% to 70%+ (and continuing to grow).
- Improved long-term organic visibility, driving more traffic and potential leads.

02 Technical Training

Establish client independence and maximum editor productivity

- Empowered clients team to maintain and enhance their SEO without heavy reliance on external consultants by means of knowledge sharing sessions, creating tailored SEO guidelines and participating in client Q and A sessions.

03 Software Migration

Converting legacy to a modern full stack solution

Assisting as a migration resource:

- Translating business specs and old templates into functioning Angular components, models and views
- Full backend integration, API mock service implementation and test coverage.

SHA risk specialists | a division of Santam

project FINTECH

Financial services company listed on the JSE with over 6000 employees and 12 Billion rands worth of revenue in 2024

01 UI Development

Established solid brand identity and engaging UI

02 Ecosystem Upkeep

Ensuring product remains secure, performant, and future-ready—minimising risk while unlocking new capabilities

03 Tech Support

Offering guidance and expert assistance where needed

Financial services company listed on the JSE with over 6000 employees and 12 Billion rands worth of revenue in 2024

01 UI Development

Seamless and efficient feature delivery, re-branding product

Provided a robust and intuitive frontend for insurance brokers, which boasts:

- Storybook integration where all UI components are well documented and organised, resulting in a mature and predictable design system, making maintenance, rebranding and new feature development a speedy task, reducing feature time to market and cost efficiency.

02 Ecosystem Upkeep

Ensuring product remains secure, performant, and future-ready—minimising risk while unlocking new capabilities

Completed three years of stewardship, as part of my mandate of excellence I have:

- Ensured that the necessary steps are taken to address aging dependencies, keeping the product in optimal condition for its profitable purpose by:
  - Implementing package ecosystem audits and fixes.
  - Enforcing and maintaining strict linting rules.
  - Managing framework and dependency library migrations.
  - Resolving Package ecosystem conflicts.

03 Tech Support

Offering guidance and expert assistance where needed

Guiding and assisting full stack team members on a Next.js project with:

- Troubleshooting rendering issues and implementing rendering optimisations.
- Data caching implementation.
- Implementing new UI components, design systems and templates.
- Debugging styling inconsistencies and CSS challenges.
- Managing and resolving package dependency conflicts.

stor-age
self storage

project

STORAGE SECTOR

Leading self storage and REIT investment company with over 60 locations nationwide, one of its kind listed on the Johannesburg Stock Exchange

01 UI Development

Creating engaging, user centric UI and quote funnels to drive sales

02 Software migration

Renew tech lifespan, delivering management efficiency

03 SEO Enhancements

Fine tune seo for top rank and maximum visibility in a competitive industry

04 Web Security

Protect client data-service API's and credentials

Leading self storage and REIT investment companu with over 60 locations nationwide, only of its kind listed on the JSE

01 UI Development

Creating engaging, user centric UI to drive sales

Working in collaboration with client design team to deliver high impact and precision UI that won client satisfaction, built to the latest and best web standards with Next.js 14.

02 Software migration

Renew tech lifespan, delivering management efficiency

- Migrated client away from legacy CMS systems to a industry leading node based headless CMS (Strapi).
- Architecting content-types and relations, full stack solution from start to finish with Front end integration and GraphQL endpoints.
- Implemented a CMS solution that enhances management efficiency, ensures content consistency, and accelerates validated feature and content development.

03 SEO Enhancements

Fine tune seo for top rank and maximum visibility in a competitive industry

Key contributor to the projects SEO success by:

- Reviewed and configured sitemaps, robots.txt, and critical redirects to prevent index bloat and diluted page authority.
- Implementing site wide SEO audits and enhancements.
- Maintained clean HTML structures and optimised key DOM elements for search visibility

Achieved top-tier rankings, maximizing user engagement and revenue potential.

04 Web Security

Protect client data-service API's and credentials

Since server requests incur costs and hacking poses significant risks, I've ensured robust protection for our client by:

- Comprehensive protection in all data-service integration work completed, ensuring sensitive API's and credentials are handled server-side.
- Developing proxy endpoints with JWT authentication to secure client-side requests.
- Sanitising front-end inputs to prevent HTML injection attacks.
- Maintaining Content Security Policy (CSP) headers on the server.

Handing over a secure and tamper proof solution.

Leading self storage and REIT investment companu with over 60 locations nationwide, only of its kind listed on the JSE

05 Optimised Asset Delivery

Providing industry leading loading speeds and web vital scores

Architecting a lightweight client bundle by:

- Implemented a gigantic rendering overhaul migrating pages away from a SSR approach to a ISR with caching strategy, offloading heavy rendering work to the server, and as a bonus implemented CMS web hooks and rate limiting for cache invalidation.
- Measurable performance gains by as much as 30%, (eg: Home page ranking at 100% performance score [Google Lighthouse])
- Optimising images for enhanced LCP and reduced CLS .
- Implementing server and client side data caching.
- Lazy loading scripts.

Delivering a lighting fast loading experience, intuitive caching and excellent web vitals for SEO.

project

FINTECH

Internal projects worth mentioning

01 Wealth Hub

Secure multi tennant investment management application with AI integration

Secure multi tennant investment management application with AI integration

01 CMS Development

Creating a next gen scalable backend

Initialised a code first, strongly typed CMS tailor made for Next.js including:

- Multi tenancy architecture.
- Multi tenancy access control layers.

02 LLM integration and Web Security

Supercharging our product with Secure LLM Capabilities

Enhancing our in-house financial proof-of-concept (POC) application with the Cohere LLM service:

- Developing internal APIs to serve as an LLM proxy layer.
- Securing backend service endpoints with middleware, strict access controls, server-side actions, and session-based JWT (JSON Web Token) request signing—ensuring cost efficiency and protecting sensitive credentials.

03 Performance

Lightning fast, thoughtful UX

Minimised data load, and data delivery wait times by:

- Utilising http streaming.
- Stream rendering with Suspense.
- Implementing advanced micro-task API’s for improved INP.
- Implementing client side caching strategies.
- Deployed and cached LLM APIs globally using edge computing (Vercel).

04 Authentication

Implementing industry leading authentication

Utilised Auth0 SDK to implement:

- Biometric authentication.
- social sign-on authentication.
- Multi tennant authentication.