

Jack Nan

Senior Full-Stack Engineer

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Portfolio: <https://belopot.vercel.app/>

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Location: China

Summary

- More than 13 years of professional frontend development experience in an Agile environment
- Expertise in enhancing user experience and business scalability
- Highly skilled in React, Next.js, and Typescript. Proficient with GraphQL, Styled Components, SCSS, MUI, Tailwind
- Love building 3D web applications using WebGL, Three.js and Babylon.js
- Love building data or map visualization using D3.js, Mapbox, Leaflet and Deck.gl
- Experienced in configuring frontend dev tooling, CI/CD processes, establishing quality standards
- Love building an efficient, performant, scalable, and user-friendly frontend

Experience

Lead Frontend Engineer | Swell Interactive LLC | Aug 2024 - Present

- Led the development of **high-performance 3D product configurators** using **Three.js, Babylon.js, and WebGL** for eCommerce and real estate industries.
- Built **custom interactive tools**, including **360° virtual tour platforms, exterior visualizers, and geospatial mapping solutions**.
- Spearheaded **frontend architecture**, ensuring seamless integration with **Neon Postgres, Strapi CMS, and Next.js**.

Lead Frontend Engineer | Startup Science | Apr 2023 - May 2024

- Led the redevelopment of a SaaS platform, replacing Vue with **HTMX and Hyperscript** to improve performance and simplicity.
- Enhanced the **user experience and platform features**, optimizing UI/UX workflows.
- Collaborated closely with product teams to ensure seamless integration of frontend technologies.

Frontend Engineer | Centric Software | Mar 2022 - Mar 2023

- Developed an **interactive 3D garment configurator** for a PLM system, enabling real-time customization.
- Optimized 3D WebGL rendering by **reducing draw calls, improving render pipelines, and minimizing memory leaks**.
- Implemented performance improvements in **React**, reducing unnecessary re-renders and blocking operations on the main thread.

Frontend Engineer | Groove Jones | Aug 2021 - Mar 2022

- Built **interactive 3D and animation-heavy web applications** for major clients, including **Elkay, New Jersey Devils, IBM, and Toyoda**.
- Developed dynamic animations using **Framer Motion and React Spring** to enhance user engagement.
- Integrated **WebGL-powered experiences**, improving interactive brand storytelling.

Frontend Engineer | C4ADS | Nov 2015 - May 2021

- Developed dynamic **dashboards and web applications** with **interactive map and data visualizations** to uncover insights in data-driven illicit networks.
- **Architected scalable frontend solutions**, designed project structures, and conducted code reviews to ensure performance and maintainability.
- **Created reusable React UX components** and optimized UI for seamless performance across desktop and tablet browsers.

Frontend Developer | Beijing Hyundai Motor | Aug 2010 - Oct 2015

- Developed a **3D car configurator** for Hyundai Genesis models, allowing **real-time vehicle customization** and engaging over **10,000 buyers**.
- Worked with **Three.js and WebGL** to create realistic 3D vehicle renders.
- Collaborated with **3D artists and UI designers** to deliver an immersive car customization experience.

Key Skills

- Languages: JavaScript, Typescript, Hyperscript, HTML, CSS, Php, Python, GLSL
- Frameworks: React, Next.js, Vue, Node.js
- UI/UX: Bootstrap, MUI, Primefaces, Styled Components, PostCSS, Tailwind, Framer motion, GSAP
- State management: Redux, Mobx, Zustand
- API: RESTful API, GraphQL, React Query
- Data Visualization: D3.js, Chart.js, Deck.gl, Mapbox, Nivo, Highcharts, QGIS
- 3D: WebGL, Three.js, Babylon.js, PixiJS, React-three-fiber, Zapworks, 8thwall
- Testing: Jest, Cypress, Karma
- Database: MySQL, PostgreSQL, MongoDB
- Other: Git, Npm, Docker, Jira, Github, ESLint, Prettier, Postman, Figma

Education

Bachelor’s Degree in Computer Science | Tsinghua University | Sept 2007 - July 2010

- Acquired strong foundation in programming, and software development.