Roman Stepaniuk

Front End Developer

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English (B1 – Intermediate) • Ukrainian (Native)

[Telegram](#) • [GitHub](#) • [Portfolio](#) • [LinkedIn](#)

Frontend Engineer with 2+ years of experience building complex, high-performance web and desktop applications. Specializing in the React/TypeScript ecosystem, architecting responsive user interfaces and solving complex integration challenges that bridge the gap between UI and low-level systems.

WORK EXPERIENCE

Python Automation Masters (Front End Developer)   02/2024 – present

As the lead developer on the project, I architected and built the entire frontend ecosystem for a multi-faceted parking automation platform. This included two core desktop applications (kiosk and cashier terminal) and a PWA admin panel, with a strong focus on performance, stability, and deep hardware integration.

Architecture & Performance Optimization:

- Engineered a code-splitting-friendly Redux store architecture by implementing dynamic injection of reducers tied to route loading (via TanStack Router), dramatically reducing the initial bundle size and ensuring a near-instant application startup.

- Eliminated critical UI bottlenecks in data-heavy lists by leveraging list virtualization (react-window) and an efficient infinite scroll mechanism (Intersection Observer) to achieve instantaneous rendering of hundreds of items.

- Engineered a highly interactive tariff grid editor, implementing a custom drag-to-select feature and architecting its state logic into reusable hooks to ensure a fluid, 60 FPS user experience by minimizing re-renders.

Hardware Integration & Low-Level Systems:

- Architected a fault-tolerant, non-blocking hardware communication layer by isolating all blocking I/O operations (COM port, serial) into dedicated Node.js child_process instances, guaranteeing 100% UI responsiveness during hardware interactions.

- Engineered a custom hardware driver and abstraction layer (HAL) from scratch, which involved reverse-engineering the CCNET binary protocol and designing a unified API (Adapter pattern) to support multiple device models.

- Integrated the React UI with native payment systems via FFI (winax), orchestrating the full card payment lifecycle and handling hardware events directly from the frontend.

Development Ecosystem & DevOps:

- Architected and delivered a scalable UI Kit from scratch (Shadcn/UI, Tailwind CSS), establishing a single source of truth for UI components that slashed new feature development time by an estimated 30%.

- Built and maintained a real-time cashier interface using WebSockets, authoring a custom Redux Middleware to manage the connection lifecycle, state updates, and a resilient auto-reconnect strategy.

- Engineered a full CI/CD pipeline with GitHub Actions for automated cross-platform builds, tackling native dependency challenges on Windows/macOS and delivering production-ready artifacts.

Technical Stack: React, Electron, Redux Toolkit, TypeScript, TanStack(Query, Router), React Hook Form, Shadcn/UI, Winax, Serialport

SD-Company (Front End Developer)   06/2023 – 02/2024

- Developed a high-throughput Next.js checkout page with deep Shopify API integration, architecting a dynamic configuration engine to allow for real-time customization of UI (colors, logo), payment methods, and analytics (GTM) by store owners.
- Implemented internationalization (react-intl) and server-side rendering (SSR) with caching for metadata generation, ensuring fast loading and SEO optimization.
- Created a complex, validated order form using React Hook Form and Zod.

Technical Stack: NextJs, TypeScript, TanStack Query, React Intl, React Hook Form, Shadcn/UI

EDUCATION

National Aviation University, Kyiv   2023 - present
Faculty of Computer Science and Information Technology

TECHNICAL SKILLS

Languages: TypeScript, JavaScript (ES6+), HTML5, CSS3

Frontend: NextJs, React, Redux (Toolkit, Toolkit Query, Middleware), TanStack (Query, Router), WebSockets, Tailwind CSS, Shadcn/UI, MUI, Ant Design

Backend: NestJs, Electron (IPC, child_process), serialport, Prisma ORM, Type ORM, PostgreSQL, Firebase

Tooling: Vite, Docker, electron-builder,Git, CI/CD, Jest