

Micaela Avigliano

Design Engineer and Senior Frontend Engineer · Design Systems, Component Architecture and Accessibility
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SUMMARY

Senior Frontend Engineer and Design Engineer with 6+ years building design systems, reusable component architectures and high-performance web applications for global product teams. Deep expertise in React, TypeScript and Next.js with strong HTML and CSS fundamentals, writing pure CSS and Sass without dependence on utility frameworks. Have worked on four design systems at different levels of maturity, covering design token pipelines from Figma, monorepo architecture, component API design and fully automated package releases. Ship interfaces aligned to WCAG 2.1 and 2.2 AA, the European Accessibility Act and the ADA, verified on real devices with NVDA, VoiceOver and TalkBack rather than automated tooling alone. Comfortable modernizing unfamiliar legacy code and partnering closely with Design, Product and QA to ship polished, maintainable interfaces.

PROFESSIONAL EXPERIENCE

Nespresso — Senior Frontend Engineer / Accessibility Engineer / Design Engineer

Jan 2025 – Present · Remote

- Lead the shared HQ UI component library used across 28+ international markets, turning design specs into reusable, brand-faithful React primitives on solid HTML and CSS foundations.
- Maintain the design system as a Yarn monorepo with a **foundations** package for design tokens and a **react** package for components, versioned and released independently so token updates and component API changes remain separate contracts for consuming teams.
- Own the token pipeline: tokens defined in Figma (spacing, colour) and exported in two formats, Sass variables for stylesheets and JSON for JavaScript consumption, giving design and engineering a single source of truth. Components are TypeScript and SCSS, themeable, alongside a framework-agnostic layer in plain JavaScript, HTML and CSS.
- Automated the release pipeline end to end: Conventional Commits on main drive semantic-release to resolve versions, generate changelogs, create scoped Git tags, publish to GitHub Packages and open GitHub Releases with notes.
- Enforce quality in CI with Vitest, Playwright, axe for automated accessibility checks and SonarQube for static analysis and quality gates.
- Expose the design system to AI coding agents through Figma MCP so generated code builds on real system primitives instead of inventing markup; integrated GitHub Copilot into the component development lifecycle and defined the review process that keeps AI-assisted contributions polished and regression-free.
- Delivered the frontend for a worldwide brand campaign reaching 350,000+ users, preserving a cinematic, boutique look and feel through careful motion and detail work.
- Act as the primary technical bridge between Design, Product and Engineering; author component documentation and lead hands-on React and UI workshops that scale shared engineering standards across markets.

Freelance — Design Engineer and Frontend Engineer

Sep 2024 – Present · Remote

- Authored and published a public library of 12+ reusable, WCAG-compliant component patterns (tabs, modals, accordions, dropdowns, tables, pagination, scroll-jacking), structured to be consumable by AI coding agents so the accessible implementation is the default one an agent reaches for. Includes original work on accessible scroll-jacking and hotspot interfaces, areas with no prior published guidance.
- Use Claude Code daily to scaffold and ship polished component patterns, accelerating delivery without sacrificing quality, and operate as the developer-validation step in design-to-AI-to-code workflows, reviewing generated output for structure, semantics and interaction quality before production.
- **Harley-Davidson** (4-month contract): built brand-heavy component architecture (carousels, modals, navigation, forms) in React, TypeScript and CSS with Storybook documentation, internationalisation and Module Federation, where independently deployed consumers made component API stability and versioning a hard contract.
- **BiomeMakers** (2-month contract): delivered data-visualization components and dashboards for an agricultural analytics platform and established repeatable patterns for the in-house React library.
- **Supra** (2-month contract): refactored frontend components in a Contentful/Nunjucks and Drupal environment with semantic, SEO-ready markup, improving performance and maintainability on high-traffic pages.

SmartAsset — Software Engineer

Jan 2024 – Oct 2024 · Remote

- Migrated a legacy SQL-backed architecture to a modern React, TypeScript and GraphQL stack; comfortable diving into and modernizing unfamiliar legacy code.
- Built SSR patterns (Apollo, Next.js) for pagination and data-rich dashboards and revitalized Core Web Vitals with a custom image pipeline, sharpening LCP and mobile performance.
- Shipped Optimizely SSR A/B testing with behavior-based segmentation; contributed across PHP, Python and SQL alongside core React and TypeScript work.

Ceres Imaging — Frontend Developer

Jan 2023 – Aug 2023 · Remote

- Worked on a design system built on third-party libraries, Vuetify and Material UI, theming them through design tokens written in plain CSS rather than building components from scratch, and assessed where an off-the-shelf system is the correct trade-off and where its component APIs constrain accessibility and brand differentiation.
- Built interactive, data-rich dashboards with TypeScript and Vue/Vuex, serving real-time analytics to clients across three continents.
- Key contributor migrating internal dashboards from Django to a modern Next.js, React and GraphQL (Hasura) architecture, improving interactivity and performance.
- Implemented advanced frontend performance techniques including lazy loading, code splitting and rendering optimization, ensuring smooth cross-browser performance on Safari, Chrome and Firefox.

Indeed — Frontend Developer and Accessibility Analyst

Sep 2021 – Jan 2023 · Remote

- Built accessible, reusable components for a local design system in React, TypeScript and plain CSS, backed by design tokens, versioned and released through a private npm registry for internal consuming teams.
- Refactored legacy code into a reusable component library and drove the documentation migration from disorganised inline code comments to Storybook, accelerating new user-flow development across teams; led the styling migration to Emotion.
- Established accessibility testing at two layers: React Testing Library with Jest for unit and interaction coverage and Cypress for end-to-end, with axe integrated into both so accessibility regressions failed the build instead of surfacing in later audits. Raised unit-test coverage to 85%, sharply reducing regressions in consumer-facing flows.
- Engineered custom focus-management and keyboard-navigation systems for interactive components across high-traffic platforms.

Telecom Argentina — Frontend Developer

Nov 2020 – Sep 2021 · Buenos Aires

- Built custom spatial navigation for the Flow Smart TV app, tuning the remote-control model to feel native on a high-traffic media platform.
- Migrated legacy Vanilla JS and Redux to a modern Next.js, TypeScript and React Context monorepo; engineered a queue system for stability during peak live-sports events.

eSSENTIAL Accessibility — Accessibility Analyst

Dec 2019 – Aug 2020 · Buenos Aires

- Implemented technical remediation (HTML, CSS, JavaScript, React) across platforms for global finance, retail and food brands; mentored junior engineers.

Accenture — Software Developer

Jun 2019 – Dec 2019 · Buenos Aires

- Built responsive Vue.js interfaces for enterprise applications and refactored UI components for performance and maintainability.

TECHNICAL SKILLS

Core Languages and Frameworks: TypeScript, JavaScript (ES6+, functional programming), HTML5, CSS3, React, Next.js, Vue.js

Design Systems and Component Architecture: Design tokens (Figma to Sass variables and JSON), theming, component API design, monorepos (Yarn workspaces), Storybook, reusable UI primitives, microfrontends, Module Federation, Vite

Release Engineering and CI/CD: Conventional Commits, semantic-release, private npm registry, GitHub Packages, GitHub Actions, SonarQube, Docker, Jenkins, AWS

Styling and UI: Pure CSS3, Sass/SCSS, CSS custom properties, BEM, CSS Modules, Emotion, Styled Components, Tailwind CSS, Material UI, Vuetify, motion and animation, responsive design

State and Data: GraphQL (Apollo, Hasura), Redux, Vuex, React Context, REST, Contentful, WordPress, Drupal

Performance and Testing: Code splitting, lazy loading, cross-browser engineering (Safari, Chrome, Firefox), profiling, Core Web Vitals, Playwright, Vitest, React Testing Library, Jest, Cypress, axe, BrowserStack

Accessibility: WCAG 2.1 and 2.2 AA, ARIA and W3C APG patterns, focus management, keyboard navigation, screen reader testing (NVDA, VoiceOver macOS and iOS, TalkBack), European Accessibility Act, ADA, PDF/UA-1 accessible document generation

Geospatial and Mapping: Mapbox GL JS, map layering, spatial data visualization, geolocation debugging, real-time analytics UI

AI-Assisted Engineering: Claude Code, Claude API, GitHub Copilot, Figma MCP, Skills authoring, agent workflows

OPEN SOURCE, TEACHING AND WRITING

github.com/micaavigliano/a11y-component-patterns-agents: WCAG-compliant React component patterns consumable by AI coding agents, covering W3C APG treeview, combobox with tree popup, tabbed carousel, comparison table and quantity stepper. Identified and documented vendor defects through real-device testing, including a Safari and WebKit role-mapping failure on input type="number" and TalkBack failing to expose adjustable actions for the spinbutton role.

Teaching: delivered a one-month accessibility course in 2020, and an online accessibility course for the Ministerio Tecnológico de Córdoba, Argentina, in 2021.

Writing: technical content on accessibility in English, Spanish and Italian across LinkedIn and dev.to, with an audience of approximately 4,000 followers.

LANGUAGES

Spanish — Native · English — Bilingual / C2 · Italian — B1 (in progress)