

SaaS Stack Modernization

Angular v8 → v19 upgrade of a live enterprise SaaS

AutoLeap · Role: Sr. Full-Stack Engineer · Status: Live, ongoing since 2021

At a glance. Led a multi-year modernization of a live enterprise SaaS dashboard — carrying it across five major Angular versions (v8 through v19) without ever taking the product down. Refactored legacy code, resolved breaking changes, and lifted performance, accessibility and security along the way, on a platform serving 5,000+ auto-repair shops across North America.

v8 → v19

ANGULAR UPGRADE PATH

5,000+

AUTO-REPAIR SHOPS SERVED

Zero

DOWNTIME ACROSS RELEASES

The Challenge

The dashboard was running on an aging Angular version, several major releases behind. Staying there meant mounting security exposure, dependencies going end-of-life, and slower feature delivery as the framework drifted further from current tooling. But this is a live product that thousands of repair shops depend on every day — the upgrade had to happen without breaking their workflows or taking the platform offline.

What I Did

I carried the app forward across each major Angular version in stages, treating the upgrade as a continuous track rather than one risky big-bang migration:

- **Staged version upgrades** — moved the codebase from Angular v8 through v15 and on to v19, one major version at a time, keeping releases stable throughout.
- **Dependency modernization** — updated libraries and packages, resolved breaking changes, and removed deprecated APIs as the framework evolved.
- **Legacy refactor** — restructured older modules and components to align with current Angular patterns and reduce long-term maintenance cost.
- **Performance & Core Web Vitals** — fixed memory leaks, added lazy scrolling across list-heavy views, and cut unnecessary upfront data loads to reduce rendering overhead platform-wide.
- **Accessibility & security** — improved accessibility and hardened the app as part of the same modernization pass.

The Outcome

The platform now runs on a current, supported Angular version with a faster, more maintainable codebase — future-proofed against the next round of framework changes and easier to build new features on. Load times and rendering improved, security posture is stronger, and none of it came at the cost of downtime for the 5,000+ shops using the product daily.

My Role

Senior Full-Stack Engineer at AutoLeap since 2021. I own product modules end to end — including Workboard 2.0, Repair Orders and Purchase Orders — and led the framework modernization alongside ongoing feature delivery across Angular and Node.js.

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