

Patrick Youells

SENIOR FULL-STACK SOFTWARE ENGINEER

Full-Stack Development | React + TypeScript + Node.js
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PROFESSIONAL SUMMARY

Senior full-stack software engineer with 10+ years of experience across automotive retail, finance, healthcare, and federal systems, primarily using React, TypeScript, and Node.js. Experience spans web applications, API integration, frontend architecture, platform modernization, and AI-assisted engineering workflows.

TECHNICAL SKILLS

Frontend: TypeScript, JavaScript, React, Vite, TanStack Router, TanStack Query, TanStack Store, Material UI, styled-components, SWR, HTML, CSS

Architecture and testing: Micro-frontends, Web Components, microservices, Webpack Module Federation, Mock Service Worker (MSW), OpenAPI, shared components, custom theming

Backend and data: Node.js, Express.js, GraphQL, .NET, Python, MongoDB, PostgreSQL, MySQL, Cosmos DB

Delivery and AI: Azure, AWS, GitHub, Azure DevOps, Copilot, Claude Code, OpenCode, MCP integrations, release automation

PROFESSIONAL EXPERIENCE

Senior Software Engineer | CarMax

September 2022 - September 2026 | Richmond, VA

Earlier tenure: May 2019 - September 2021

- Established the frontend architecture and built the CarMax Auto Finance site from the ground up using React, TypeScript, Vite, TanStack Router, Query, and Store, and Material UI with custom CarMax theming.
- Designed and implemented Demo Mode using Mock Service Worker (MSW) and realistic mock responses aligned to an agreed OpenAPI specification. Adopted team-wide for daily development, QA scenario testing, and stable product demonstrations without a live backend, enabling frontend work to proceed in parallel with backend development.
- Delivered authentication, routing, dashboard API integration, feature flags, telemetry, and resilience alongside customer payment, payoff, transaction, and feedback experiences.
- Built 20 reusable AI agent skills and repository guidance for planning, development, testing, and release workflows. Integrated AI with GitHub, Azure DevOps, and Figma using Model Context Protocol (MCP) integrations.
- Connected AI workflows across story creation, pull request preparation, QA criteria, and deployment traceability; standardized semantic versioning and release automation across repositories and introduced AI-generated production release notes.

PROFESSIONAL EXPERIENCE CONTINUED

CarMax | Additional Contributions

- Selected by leadership to support Finance for You pre-qualification, improving application steps, analytics, UI interactions, and user acceptance testing.
- Led a team building Dash with Webpack Module Federation, enabling product teams to build micro-frontend experiences within a shared dashboard host and reuse common components.
- Led development of an out-of-state registration queue for associate follow-up on unregistered vehicle purchases, supporting an initiative to reduce bad-debt exposure.
- Built mobile store check-in and Offer Hub appraisal tools; served as technical lead for Appraisal Checkout to digitize the vehicle-selling experience.

Initially engaged through TEKsystems; later converted to a CarMax employee.

Senior Software Engineer | AdvisorEngine

October 2021 - January 2024 | Mt. Pleasant, SC

- Contributed to the full modernization of AdvisorEngine CRM (AE CRM), formerly Junxure, migrating a legacy PHP/Symfony application to React for financial advisory firms.
- Built themed interfaces with styled-components, integrated microservices using SWR for caching and server-state management, and used Web Components to share frontend experiences across applications.

Additional technology: .NET, AWS, PostgreSQL

Technical Architect | Perficient

October 2018 - May 2019 | Remote / Jacksonville, FL

- Served as technical lead for the PPX Reporting Team at Blue Cross Blue Shield of Florida, leading developers building a payment-processing reporting dashboard.

Technology: React, Node.js, Redux, Python, OpenShift, PostgreSQL, MongoDB

Senior UI/UX Developer | Data Concepts

December 2017 - February 2019 | Glen Allen, VA

- Designed and developed user interfaces as a consultant on Magellan Health's Digital Team, supporting multiple client-facing React and Angular applications.

Senior Consultant | Booz Allen Hamilton

April 2017 - December 2017 | Charleston, SC

- Converted from a consulting engagement to a full-time role, continuing work on the Veterans Benefits Management System (VBMS).

Software Engineer | Liberty IT Solutions

September 2015 - April 2017 | Charleston, SC

- Developed software for VBMS, a federal initiative to digitize veterans' benefits claims, automate claims tracking, and support a transition from paper-based processing.

IT Systems Analyst | Genworth Financial

October 2014 - February 2016 | Lynchburg, VA

- Developed the EProcess J2EE workflow application used by more than 2,000 customer service representatives to track daily call-center work.

EDUCATION

Radford University | Information Science and Systems

Concentration in Web Development | Graduated May 2014