

# BRIAN KIERNAN

## SENIOR SOFTWARE ENGINEER

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ACTIVE U.S. SECURITY CLEARANCE — TOP SECRET

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### SUMMARY

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Full-stack engineer turning high-stakes ambiguity and essential complexity into shipped systems. Building production React, Angular, and Node.js applications since Jan 2020 — frequently as the sole architect on greenfield work or the engineer brought in to recover stalled projects. Comfortable in constrained environments (air-gapped, defense, regulated) and across the stack: real-time systems, observability tooling, internal platforms, developer infrastructure, and access control. Prior career as owner-operator of a \$500K annual sales remodeling business; brings the same operator mindset to engineering.

### EXPERIENCE

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#### **Rocket Communications, Inc.**

*UX/UI consultancy for U.S. defense and aerospace clients · Jul 2022 – Present*

#### **Senior Developer, meshONE-Terrestrial Monitoring Displays — Entarian [All in]**

Mar 2025 – Present

Leading execution on real-time NOC heads-up displays for meshONE-T — the U.S. Space Force terrestrial data-transport network supporting the DAF Battle Network, expanding to 85+ global sites. Used 24/7/365 by NOC operators in an air-gapped environment. Client expanded the team from 1 to 2 engineers based on delivery.

- > Architected and shipped the primary NOC heads-up display inside a ServiceNow portal (AngularJS), unifying SolarWinds monitoring, network nodes & circuits, AWEs, and incident/problem/change/maintenance tickets in a single real-time view that replaced multi-tool operator workflows.
- > Designed an end-to-end alert pipeline: SolarWinds alert profiles → ServiceNow Event Management → live monitoring panel; on-site user research with operators validated faster response and consolidated situational awareness.
- > Architected the secondary Network Health monitoring display from zero: React + Node.js (no framework), SSE pushing real-time metrics from Prometheus, custom selector-based state to eliminate re-renders across deeply nested components, self-hosted Protomaps for node/circuit visualization, and custom ADFS integration for stateless SSO — all behind nginx on RHEL in an air-gapped environment.
- > Built an internal UI design system (PandaCSS custom preset, Astro UXDS-aligned React components) as a shared package in a pnpm/Turborepo monorepo, reusable across future anticipated dashboards.
- > Implemented a CDN-style asset-serving pattern via a custom ServiceNow REST API, enabling modern ChartJS in an AngularJS portal for quarterly network metrics reporting.

#### **Senior Developer, R2C2 Platform Services Development — Auria**

Nov 2024 – Feb 2025

Delivered cross-cutting contributions unblocking 3+ product teams on an internal GitOps platform (GitLab CI + Argo CD), focused on reusable authentication and micro-frontend configuration.

- > Authored an internal React component package wrapping Keycloak.js as an AuthProvider; adopted by 2+ teams and offered to others. Stood up a Keycloak dev instance and wrote onboarding documentation.
- > Refactored a React micro-frontend (AWEN) onto Webpack Module Federation and designed a ConfigProvider pattern delivering deploy-time configuration via `config.json` — solving a hidden bug where federated widgets couldn't reach service APIs.
- > Removed hard-coded services and widgets from Platform source, refactoring them to load from a database endpoint so the catalog can change without a redeploy; scaffolded an admin area to manage it.
- > Built vis-timeline component for the Integrated Timeline v2 prototypes alongside the existing timeline components, establishing a clear migration path off the legacy timeline.

## Senior Developer, GLUE — Space Dynamics Laboratory

Oct 2023 – Nov 2024

Led a 3-engineer frontend team modernizing a satellite tasking and scheduling application built originally by backend developers.

- > Refactored an Angular app into a polished, designer-led product with a bespoke PrimeNG theme, vis-timeline scheduling & tasking UI, and a complete overhaul of date validation & timezone-aware tables.
- > Drove early adoption of NgRx SignalStore (then brand-new, now standard) in place of the legacy RxJS observables — eliminated a class of state bugs and set the team's state-management conventions.

## Developer, FORGE IRAD — Raytheon & Astro UXDS Team

Jul 2022 – Sep 2023

Originally joined Rocket's open-source Astro UXDS team; took over as lead on a stalled Vue-to-React rebuild after the original team was reduced. Finished and shipped the application.

- > Built a fully custom playback timeline and a drag-and-drop flow editor (Cytoscape-based dependency graph) for composing step-function-style action sequences with conditional branching.
- > Solved virtual-DOM performance bottlenecks blocking page navigation by selectively opting components out via the `million` library; architected a lightweight custom Redux-style store in TypeScript.
- > Earlier: built React demo apps and developer tutorials for Astro UXDS; authored an npm package bridging Astro UXDS design tokens to the MUI theming system.

## Homecomp.com

Founder & Lead Developer · Jan 2020 – Jul 2022

- > Designed and shipped to production a real-estate comparison web app: Next.js/React/Redux/TypeScript front end, Firebase + Next.js serverless backend integrating third-party market data APIs to compute on-the-fly comps within a 1-mile radius of any subject home.
- > Built a complex monthly Stripe billing pipeline for a Realtor-facing postcard marketing service — multiple products with variable monthly usage tallied into a single invoice and charge per customer.

## Shelburne Renovations, LLC

Owner-Operator · Mar 2013 – Dec 2019

- > Built and operated a full-service custom kitchen and bath remodeling company; grew to \$500K annual sales by 2018 before transitioning into software engineering full-time.

## TECHNICAL SKILLS

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<b>Languages</b>	TypeScript, JavaScript; Rust (actively building depth); comfortable shipping in Python and Go
<b>Backend</b>	Node.js, Express, FastAPI, Axum, REST API design, Event-Driven Architecture (EDA), OAuth flows, Server-Sent Events (SSE), WebSockets, Keycloak, Prometheus, PostgreSQL, MongoDB
<b>Frontend</b>	React, Next.js, Angular, Vite, Webpack & Module Federation, Micro Frontends, custom state management, Redux, NgRx (incl. SignalStore), PrimeNG, MUI, ChartJS, Cytoscape.js, vis-timeline, PandaCSS, styled-components, design systems and tokens
<b>Platform &amp; Infra</b>	Nx, Turborepo, pnpm workspaces, Cargo workspaces, Linux services, Docker, AWS, GCP, GitOps, GitHub Actions, GitLab CI, Argo CD, Nginx, ServiceNow development
<b>AI-Assisted</b>	GitHub Copilot in VS Code (in-line and agent modes); Claude Code in the terminal for agentic feature work and exploration of unfamiliar codebases
<b>Focus Areas</b>	Real-time dashboards, observability & workflow tools, complex graph & timeline data visualizations, internal platforms & developer experience, greenfield architecture, legacy modernization; growing depth in Rust

## EDUCATION

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**Self-taught software engineer** — full-time professional development since Jan 2020; continuous learning across modern web, backend, and platform engineering.