Grant Forrest

Senior Full-Stack Web Developer | Raleigh NC | Remote

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Creative and pragmatic builder with 11 years of expertise in web technologies. I own ideas from product design to pixels onscreen, and I have years of experience as a technical leader on teams and within organizations. I move quickly *and* carefully, honing in on the most important problems and delivering solutions that are scalable, extensible, and delightful.

Career

Volumetrics | Senior Platform Engineer   2024-2025 | Remote

- Enabled users building AR experiences without leaving their headsets with a full in-browser code editor, including multi-device collaboration, NPM package support, Typescript checking, and limited hot reloading.
- Designed resilient, unified AR room plane data sync from headset to other devices.
- Added seamless device pairing via local network discovery and paircodes.

Butlr | Senior Full-stack Engineer   2023-2024 | Remote

- Expanded functionality of web-based spatial device deployment and monitoring tool, replacing an older project and unlocking faster and more ambitious customer installations.
- Oversaw the full migration of internal data from DynamoDB to PostgreSQL, ensuring no downtime or inconsistency.
- Worked across teams to reduce internal service traffic, reducing cloud costs.

Mysteries (d.b.a. Glue) | Senior Full-stack Engineer   2023 | Remote

- Rapidly iterated on prototypes for dynamic virtual meeting software using the Zoom video SDK for web.
- Overhauled the checkout flow, leading product discovery to rebuild itemization and surface more information to customers.
- Consolidated legacy email services into a standardized system in SendGrid with adaptable templates.
- Extended GraphQL APIs to provide summarizations of data analytics results and connected them to graphical visualizations on the frontend.
- Spearheaded team training on frontend practices and craft development via code review, pair programming, and publishing internal learning materials.

With Labs | Founding Engineer   2020 - 2023 | Remote

- Lead engineer on PopSpace (https://popspace.io), a web-based spatial virtual coworking and meeting app.
- Developed a custom DOM-based 2D infinite canvas renderer to power performant, interactive "virtual room" spaces in the browser.
- Designed and implemented real-time websocket data synchronization for user interactions and embedded media states.

- Integrated audio, video, and screensharing into web products using Twilio and LiveKit WebRTC services, with automatic fallback for high availability.
- Scaled multiple real-time multimedia software products to 50+ participants per session.

[Bandwidth](#) | Software Developer IV   2014 - 2020 | Raleigh, NC

- Founded the UI team and redeveloped all legacy web products under a unified technology stack of React and TypeScript.
- Owned and iterated a library of shared React design system components, working closely with the design team to roll out new interactions and components across multiple products.
- Mentored UI team members to develop skills with modern web technologies and accessibility standards.
- Participated in product discovery work alongside product owners to migrate legacy products to new codebases without customer disruption.

[North Carolina State University Libraries](#) | Developer   2012 - 2014 | Raleigh, NC

- Designed and developed user-facing book checkout kiosk software using WPF and C#.
- Prototyped immersive multimedia presentation planning software for media rooms, built in-browser using WebGL.

Notable Open-Source Projects

https://biscuits.club | A suite of local-first tools

- All apps feature collaborative experiences, rich user presence, and offline support.
- Biscuits apps span a wide variety of use cases and feature advanced interactions like infinite canvas editing and collaborative rich text.

https://verdant.dev | A local-first framework built on CRDTs with reactive queries and multiplayer

- Promotes data consistency with schema-based document storage and time-traveling migrations for schema changes.
- Provides automatic rich diffing of complex objects and reactive index-based queries.
- Conserves storage space using a unique approach to CRDTs and device synchronization.

Skills   Ordered by experience

Languages/Tools: TypeScript, Core Web (HTML/CSS), React, NextJS, ThreeJS, GraphQL, NodeJS, SQLite, Postgres, Cloudflare Workers and Durable Objects, Docker, GCP, AWS

Experience: Frontend & Full-Stack Development, Design Systems, Technical Team Leadership, Product Discovery, Product Design

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Education

BS in Computer Science   2014 | Raleigh, NC
North Carolina State University