

Tim Kendrick

Rust/TypeScript/React Software Engineer

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Overview

Bright, enthusiastic hard-worker with over fifteen years' experience across multiple industries. I'm highly self-motivated, a fast learner and a very strong team member with excellent problem-solving skills and a keen eye for detail and aesthetics.

Equally comfortable building pixel-perfect UIs, robust frameworks and libraries, or time-saving automation utilities and developer tools, I love to tackle big problems and take pride in writing clean code built around elegant user-focused APIs.

Frameworks / Technologies

Strong expertise in Rust, WASM, TypeScript, React, Node, GraphQL, gRPC, WebSockets, RxJS. I particularly enjoy building polished user interfaces, functional/reactive/stream programming, and anything involving practical applications of CS theory.

Outside work I take on ambitious solo coding projects and like to learn new concepts from first principles, having written my own implementations of parsers/interpreters/compiler, macro systems, abstract regular expression matchers, actor systems, observables, virtual DOM, etc, to gain a deep understanding of how everyday tools and concepts work at a fine-grained level.



Selected Work History

- April 2020 - August 2023: [Marshall Wace](#), Lead Software Engineer
- April 2019 - December 2019: [11:FS](#), Senior Software Engineer (freelance)
- September 2018 - March 2019: [Canvas Composer](#), Solo developer
- August 2016 - August 2018: [Deutsche Bank / DWS](#), Lead Open-Source Developer (freelance)
- September 2013 - April 2015: [Fathom](#), Lead Developer
- February 2013 - August 2013: [R/GA London](#), Senior Front-End Developer (freelance)
- August 2011 - January 2013: [Burberry](#), Senior Front-End Developer (freelance)
- Summer 2006 - February 2010: [Ralph](#), ActionScript Developer

Selected Open Source Projects

Popular utility libraries

Note that my personal repositories are no longer receiving non-critical maintenance due to employers' OSS policies

- [recursive-copy](#)  – Simple, flexible file copy utility
- [memoize-weak](#)  – Garbage-collected variadic function memoizer
- Many more at github.com/timkendrick and npmjs.com/~timkendrick

Larger standalone projects

- [Reflex](#) (2023) – Reactive programming language and accompanying tools
- [Skivvy](#) (2015) – Modular task runner for reusable build systems

Selected Job Roles and Responsibilities

Marshall Wace (April 2020 - August 2023)

Joined as a UI developer on a small, delivery-focused team building the company's flagship internal portfolio management suite. Soon promoted to lead UI developer, where my responsibilities were split between UI development, tooling, and DevOps/infra. Changes I instigated to our team hiring process improved the interview:hire ratio from roughly 10:1 to 3:1.

Increasing focus on GraphQL API development led to a dedicated role developing streaming technologies for distributed systems, primarily leading the design and implementation for the Reflex reactive programming language (see [promo site](#) for more details). Use on a production system led to codebase size reduction from 15K LOC to 5K LOC.

I wrote the compiler/interpreter/runtime/devtools in Rust, opting for an async actor-based architecture for the streaming server. The Reflex toolchain is highly configurable, with compiler front-ends for multiple interoperable source languages, back-end implementations for both WASM and a proprietary VM bytecode instruction set, extensible standard library, etc.

11:FS (March 2019 - December 2019)

Lead TypeScript / React Native developer building a greenfield mobile app UI for a US retail bank's new challenger offering. Responsibilities included front-end architecture design, development of in-house testing framework and cross-platform styling tools, presenting technology-related talks, and interviewing potential new hires. Singlehandedly developed a fully-functioning prototype app within three weeks of arrival, with entire polished V1 release in users' hands within less than three months.

Canvas Composer (September 2018 - March 2019)

Solo project building a large-scale IDE for rapid development of React applications ([canvascomposer.com](#)). Intuitive UI builder allows toggling between visual drag-and-drop workspace and source code editor. Component library plugins and integrated zero-config build tools allow rapid application prototyping within a graphical interface. Extensive static JSX source analysis of existing code allows prototypes to be seamlessly integrated within a real codebase.

Deutsche Bank / DWS (August 2016 - August 2018)

Lead architect/developer on a graph-based streaming data framework used to power data-driven front-end applications across DWS. Consumer teams reported large productivity gains and vastly decreased bug count. Project responsibilities included product direction, API/architecture design, core library implementation, development of bespoke unit-testing framework and browser plugin for developer tools.

Fathom (September 2013 - April 2015)

Lead front-end developer for a highly interactive real-time corporate bond trading platform for [Tradeweb](#) and accompanying [component suite](#). Responsibilities included application architecture, development of in-house component library, performance tuning/profiling, internal build tools, technical leadership, teaching and supervising other developers, hiring new developers.

Burberry (August 2011 - January 2013)

UI development for all interactive experiences on burberry.com, creation of in-house JS/CSS Framework (used across all campaign sites, live streamed fashion shows, press kits and in-house tools), development of in-house internationalization tools, automation / build process improvements, technical research, hiring and supervising new developers.

Academic History

- **2005 - 2008:** Trinity College, University of Cambridge (BA degree in Philosophy)
- **2003 - 2005:** Sevenoaks School (International Baccalaureate Diploma, 45 out of 45)