Tim Kendrick

Rust/TypeScript/React Software Engineer

Web timkendrick.co.uk / LinkedIn timrbkendrick / Github timkendrick / Email timkendrick@gmail.com

Overview

Product-driven hard-worker with two decades' experience across multiple industries. I'm highly self-motivated, a fast learner and a committed 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 tooling, I love to tackle big problems and am passionate about developing innovative solutions to formidable technical challenges.

Frameworks / Technologies

Strong expertise in TypeScript, React, Rust, WASM, Node.js, GraphQL, gRPC, WebSockets, RxJS. I particulary enjoy building polished user interfaces, functional/stream programming, and putting CS theory into practice to solve real-world use cases.

Outside work I take on ambitious personal coding projects and like to learn new concepts from first principles. In addition to end-to-end solo product builds, I've written my own clean-room implementations of programming language interpreters and compilers, regular expression engines, actor systems, observables, virtual DOM, etc, to gain a deep understanding of how everyday tools and frameworks are implemented, which helps inform the design decisions I make at work.

Selected Work History

- April 2024 Present: Squarepoint Capital, Software Engineer
- October 2023 April 2024: AG Grid, Senior Software Engineer
- April 2020 August 2023: Marshall Wace, Lead UI Developer / Rust 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 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

- ReactiveKit (2025) Lightweight reactive runtime for building deterministic full-stack apps
- Reflex (2023) Reactive compile-to-WASM programming language and accompanying toolchain
- Skivvy (2015) Modular task runner for reusable build systems
- recursive-copy (2015) downloads 641k/month Simple, flexible file copy utility
- memoize-weak (2016)
 downloads 267k/month Garbage-collected variadic function memoizer
- Many more at github.com/timkendrick and npmjs.com/~timkendrick

Academic History

- 2005 2008: Trinity College, University of Cambridge (BA degree in Philosophy)
- 2003 2005: Sevenoaks School, International Baccalaureate Diploma (45 out of 45, top 0.19% of students worldwide)

Selected Job Roles and Responsibilities

Squarepoint Capital (April 2024 - present)

Led the design and implementation of a greenfield timeseries data visualisation platform with extensible query/transformation DSL, live code editor, modular UI, and user-contributed plugin ecosystem. Primary contributor to Rust / React / GraphQL and Python tiers of the stack.

AG Grid (October 2023 - April 2024)

Building developer tools and core features for the market-leading open source datagrid/charts library (ag-grid.com). Created a codemod framework and associated AST manipulation libraries.

Marshall Wace (April 2020 - August 2023)

Lead UI developer (2020 - 2022)

Joined a delivery-focused product team building the company's flagship internal portfolio management suite and associated component library. Promoted to lead UI dev, where reponsibilities included React UI development, tooling, and DevOps/infra. Increasing back-end responsibilities led to a dedicated role developing streaming technologies for distributed graph systems.

Rust Software Engineer (2022 onwards)

Led the design and implementation of an open source reactive programming language (see promo-site for details). Use on a production system led to codebase size reduction from 15K LOC to 5K. I wrote the compiler/interpreter/devtools in Rust, including both proprietary VM bytecode and WebAssembly back-ends, and accompanying actor-based async server runtime.

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. 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 modular 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 and 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. 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 UI developer for a 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.

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.