KENNETH POWERS

SOFTWARE ENGINEER · GREATER BOSTON AREA · AVAILABLE REMOTE
github.com/knpwrs · knpw.rs · ken@kenpowers.net

Skills

Languages

- Proficient in: JavaScript (Universal Server/Browser, TypeScript, React), HTML5, CSS3
- Experienced with: Rust, Ruby, C# and .NET Framework, Java, Kotlin, Swift, SQL

Software

- Database: PostgreSQL, MySQL, SQL Server, MongoDB, Redis
- Tools: Docker, Depot CI, Terraform
- Platforms: macOS, Linux/Unix, Windows

Experience

Hummingbird · Senior Software Engineer · Remote   August 2020 - Present

- Developed and maintained complex applications using React, Apollo, TypeScript, GraphQL, ElasticSearch, and PostgreSQL.
- Built a type-safe automation platform trigger editor capable of managing deeply nested data structures.
- Built a Liquid/Markdown editor with syntax highlighting, and a custom language service supporting autocomplete and linting.
- Built a SQL editor with inline error reporting from remote (customer-hosted) data warehouses.
- Led frontend migration from Webpack to Vite, reducing build times and improving developer productivity.
- Prototyped AI/LLM RAG Q&A in Rust using OpenAI Embeddings and an HNSW index.
- Managed AWS infrastructure across multiple environments using Terraform.
- Worked with systems designed to protect PII.
- Implemented custom linting rules to prevent database deadlocks and regex injection vectors.
- Improved developer productivity with Nix, Navi, and direnv.

Signal · Desktop Developer · Remote   April 2019 - June 2020

- Modernized the desktop application by migrating from legacy Backbone.js to React/Redux with TypeScript.
- Designed and implemented features like a virtualized, fuzzy-searchable emoji picker and inline emoji typeahead.
- Built a cross-platform sticker creation tool with encryption and native library integrations.
- Refactored the desktop application to support multiple addressing schemes.
- Worked with and designed for systems involving distributed state.
- Worked with SQLite, SQLCipher, and Protobufs.
- Worked extensively in open source and worked directly with our users.

SHIFT Media · Lead Frontend Engineer · Boston, MA   September 2017 - April 2019

- Designed and implemented upload queueing, cross-window Redux store sync for Electron, and SVG-based annotation tools.
- Mentored junior engineers and presented multiple talks about advanced concepts in JavaScript and React/Redux.
- Hired as Senior Software Engineer. Promoted to Lead Software Engineer in March 2018.

Candescent Health · Software Engineer · Remote (Waltham, MA)   April 2016 - August 2017

- Built tools for distributing and monitoring doctor workloads across facilities using Angular and PHP.
- Open-sourced a Babel plugin for automatic dependency injection in Angular projects.
- Prototyped Electron applications with native integrations to radiology software.
- Prototyped new projects with React and Vue.
- Delivered internal tech talks on modern JavaScript and CSS best practices.

IBM · Staff Software Engineer · Littleton, MA   January 2013 - April 2016

- Developed high-performance front-end solutions using React, Redux, and the Dojo Toolkit.
- Automated builds and deployments with Jenkins.
- Contributed to open source software including the OpenNTF JavaScript Aggregator and the Frontend Maven Plugin.
- Created a mock browser environment for load testing offline capabilities.
- Created a shim for testing New Relic Synthetics offline.

IBM · Smarter Cities Technical Coop · Remote (Raleigh, NC)   August 2012 - November 2012

- Developed a prototype for an IBM Smarter Cities data visualization product using Dojo Toolkit and OpenLayers.

IBM · Extreme Blue Innovation Lab Technical Intern · Austin, TX   May 2012 - August 2012

- Led a cross-functional team to create a drag-and-drop mobile app development tool targeting non-technical users.
- Presented technical project details to multiple IBM executives.

Big Y Foods, Inc · Technology Administrator / Systems Development · Springfield, MA   January 2010 - May 2012

- Built internal tools with ASP.NET MVC (C#) and Microsoft SQL Server to streamline corporate workflows.
- Created stored procedures for Microsoft SQL Server to generate reports on various data collected from stores.

Personal Projects · `github.com/knpwrs` · `knpw.rs`

- My personal GitHub profile contains personal projects and contributions to various open source projects. Notable open-source contributions include the MongoDB NodeJS Driver, immer, JSDom, and the Frontend Maven Plugin.
- `https://instant.bible` is a Bible search engine which delivers results instantly as you type. The engine is written in Rust and has native clients written in Swift (FFI), Kotlin (JNI), and TypeScript/React (WASM).

Volunteer Work

Let's Church · Founder and Principal Engineer · `lets.church`   January 2023 - Present

- Founded a 501(c)(3) nonprofit providing free technology resources for churches and ministries.
- Designed and managed infrastructure for video transcription and transcoding, leveraging both cloud and bare-metal servers with specialty hardware.
- Implemented transcript search functionality with ElasticSearch.
- Built and deployed the Let's Church website using SolidJS, Prisma, and Pothos, delivering a modern and efficient user experience.

ExcelChurch · Technical Director · Leominster, MA   February 2014 - July 2019

- Designed and implemented live production setup using ProPresenter, Reaper, Lightkey, and Wirecast.
- Implemented a MIDI-controlled automation system for seamless coordination of click tracks, backing tracks, lighting, and projection.
- Oversaw weekly setup and teardown of professional A/V equipment including sound, recording, and projection.
- Trained and mentored volunteers through hands-on sessions, instructional videos, and written documentation.

Education

University of Massachusetts Amherst · Amherst, MA · 3.7 GPA · BS Computer Science   2011 - 2013

- Earned two academic awards for outstanding performance in computer science courses.
- Achieved Dean's List recognition for three out of four semesters.

Springfield Technical Community College · Springfield, MA · 3.8 GPA · AS Engineering (CS)   2009 - 2011

- Received two annual awards for exceptional academic achievement.
- Completed directed studies in Computer Science and Mathematics.
- Achieved Dean's List honors for all four semesters.