Kieran Potts

Software Developer • Technical Writer

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Technical specialisations

- Full-stack web application design
- React, Vue, and single-page application architecture
- HTTP and GraphQL APIs
- JavaScript, TypeScript, and Node.js
- Java and Spring Framework
- PHP and Laravel

Current certifications

- AWS Certified Cloud Practitioner
- GitHub Actions

Selected projects

LexisNexis Risk Solutions

Software Developer III • Contract • 2024 - present

- Supported the redesign of the company's flagship identity screening service
- Iterated the design of a new API gateway service, written in PHP with Laravel
- Extended back-end services written in a specialist data analytics tool, Enterprise Control Language
- Additional data analysis scripts written in Go, aggregating data from a sharded database
- Integrations with public service APIs such as the National Fraud Initiative (NFI)
- Developed validation services for passports, driving licences, and national insurance numbers
- Maintained 100% code coverage through a combination of unit and integration tests
- Integrated OpenTelemetry with the Elastic Stack for monitoring and observability
- Configured CI/CD pipelines (GitHub Actions)

LiveMore Mortgages

Technical Lead • Permanent • 2024

- Planned and coordinated a successful big-bang deployment of a major new feature
- Deployed multiple service updates to AWS, automated via CodeDeploy and GitHub Actions
- Implemented Jira Service Desk with Slack integration to improve customer support management
- Consolidated fragmented technical documentation into a single Confluence space

Specsavers

Senior Software Developer at BJSS • Permanent • 2021 - 2023

- Rebuilt a monolithic desktop application as a distributed cloud service
- Implemented a micro front-end architecture that supported SPA development across six teams
- Maintained a Vue-based UI component library, documented using Storybook
- Contributed to back-end services written in Java on the Spring Framework
- Implemented a GraphQL API gateway service. Consulted on the design of client-server contracts
- Collaborated with business analysts on software requirements specifications
- Collaborated with QA engineers on automated UI tests using Selenium
- Collaborated with platform engineers on Azure DevOps automation
- Steered a cross-team technical standards alignment group
- Proposed and gathered consensus for better ways of working

Moorfields Eye Hospital

Senior Software Developer at BJSS • Permanent • 2021

- Created a statically-generated web front-end using Nuxt
- Contributed to a library of custom UI components built with Vue
- Complied with WCAG Level AA accessibility guidelines
- Set up automated accessibility tests using aXe, and visual regression tests using WebDriverIO
- Conducted manual accessibility testing using assistive technologies such as NVDA

TimeTrack

Technical Lead • Freelance • 2020 - 2021

- R&D project to build a proof-of-concept automated time logging system
- Coordinated a remote team of contractors and freelancers. Oversaw all design and development activities
- Worked closely with the business owner on the core data processing algorithms
- Established an RFC system to manage technical proposals and record key design decisions
- Implemented a back-end service as a modular monolith, designed for extraction into services
- Constructed a layered application architecture with an isolated domain model at the centre
- Prototyped a single-page web application built with React and backed by an HTTP API gateway
- Created extensions for Chromium browsers and Firefox, compiled from a single source
- Repurposed a Material Design component library for the UI
- Planned for scalability from the start, eg. denormalization and read-write segregation
- Node.js workers were used to leverage multi-threading in the main request-response cycle
- Long-running data processing tasks were queued in a job scheduling system

Zylo Performance

Full-Stack Web Developer • Freelance • 2020 - 2021

- Developed and maintained a custom business process management system in Drupal
- Integrated payment card processing (FideliPay) and Direct Debits (GoCardless)
- Used Adobe XD to mock UI designs and plan user journeys

Maker DAO

Front-End Web Developer • Freelance • 2019 - 2020

- Created a responsive, mobile-first WordPress theme
- Adopted the utility-class methodology to CSS architecture
- Contributed to copywriting and search engine optimisation

Redgate Software

Technical Lead at Helastel • Contract • 2018 - 2019

- Led a project to transition the SQLServerCentral.com website to a new tech stack
- Gathered requirements via client conversations and reverse engineering of the legacy system
- Documented a complete target specification for the replacement system
- Undertook rapid prototyping to help estimate costs and timelines, and mitigate delivery risks
- Used monthly checkpoints to establish trust with the customer
- Created dozens of custom WordPress plugins
- Wrote shell scripts to automate the migration of 17 years of editorial and user-generated content
- Switched-over with minimal downtime and no subsequent issues in production
- The solution, delivered on time and to budget, met all functional and non-functional requirements

Fresenius Kabi

Software Developer at Helastel • Contract • 2018

- Salvaged a failing software project
- Identified and prioritised issues
- Enhanced the accuracy of project estimation and delivery reports
- Successfully delivered a custom CRM operating on the NHS IT network

DenGro

Full-Stack Web Developer • Contract • 2017

- Helped launch an enterprise software-as-a-service built on Laravel
- Collaborated with UX designers on critical user journeys
- Redesigned the onboarding journey, where beta testing had revealed poor conversion rates
- Refactored code to improve time-to-first render and other performance metrics
- Made extensive use of Laravel job queues to offload processing from the main execution thread

CurrencyCloud

Technical Writer • Freelance • 2017

- Rewrote all user-facing documentation to improve accuracy and readability
- Reverse engineered CurrencyCloud's public web service to create a complete OpenAPI specification

Zapmap

Full-Stack Web Developer • Permanent • 2016 - 2017

- Begun work to increment away from a tightly coupled monolith to a more modular, scalable design
- Designed and implemented a new HTTP API, decoupling the client-side from the server-side
- Supervised the development of iOS and Android clients
- Worked with the data engineer to iterate the database design in a non-breaking way
- Optimised slow-running SQL queries. Added load balancing and caching infrastructure
- Administered physical Linux servers (CentOS)

investUP

Front-End Web Developer • Permanent • 2014 - 2016

- Implemented a lightweight, responsive single-page web application
- Created a custom framework inspired by Backbone's MV*-style architecture
- Developed a custom UI component library with a living style guide
- Implemented the "cut the mustard" progressive enhancement technique
- Made extensive use of data visualisation to summarise financial data

Employment and education history

2024 - present	Contract Software Developer
2021 - 2023	Senior Software Developer, BJSS
2017 - 2021	Contract Software Developer
2016 - 2017	Full-Stack Web Developer, Zapmap
2014 - 2016	Front-End Web Developer, investUP
2006 - 2014	Freelance Web Developer (self-employed)
2006 - 2006	Public relations for Audible, Monument PR
2004 - 2005	Technology Writer, Deputy Editor of PC Plus magazine, Future Publishing
2001 - 2003	Staff Writer, ITP (Dubai)
1998 - 2001	First-class honours in Human Geography, Leeds University