David Garner

Technical Lead

dprgarner@gmail.com · Github · LinkedIn

I'm a full-stack web developer and technical lead based in London. My primary focus is front-end development with JavaScript and React, but I also have considerable professional experience in back-end development with Node.js, Python, and Django. I place a strong emphasis on quality in all of my code, and consider unit testing and code review to be essential parts of the development process.

Key Experience and Skills

- Front-end tools & approaches: **React, TypeScript, React Native, Apollo Client, Modern ECMAScript, Responsive Design, Design Systems**, Accessibility, Styled Components, Webpack, Redux, RxJS, Sass, Microfrontends
- Languages & Frameworks: **Node.js, Python**, Next.js, Apollo Server, Koa, Express, Django, Solr, Elasticsearch
- Infrastructure & Cloud Computing: **Docker, AWS** (including Lambda, CloudFront, Fargate, CloudFormation, CloudWatch), GCP (including GKE, PubSub, BigQuery), Kubernetes, Terraform
- Testing: **Jest, React Testing Library, Mocha, Selenium, TDD**, BDD, pytest
- Source control and CI/CD: **Git**, CircleCI, Jenkins, TeamCity, Gitlab CI, Subversion
- Command line tools: Vim, Bash scripting, common CLI utilities (`sed`, `grep`, `make`, etc.)
- Monitoring: Sentry, Datadog, AWS CloudWatch
- Process management: Scrum, Kanban, Jira, Trello
- Other: GraphQL, PostgreSQL, REST, Consumer-driven contracts

Employment History

January 2022 - Present: YLD, London, UK (Contract role)

Senior Software Engineer at Zoa, Jan 2023 - Present

I worked as a consultant from YLD for the energy tech start-up Zoa as they broke away from Bulb and formed an independent company to create white-label apps and tools for energy suppliers.

- I worked with the "apps platform" team to build and maintain a monorepo containing our web apps, native apps, and backend-for-frontend services, and designed architectural and usage patterns for developers creating product features;
- I built the core code of the React and React Native features allowing an energy consumer to manage their electric vehicle charging schedules and view their household energy consumption;
- I designed and implemented an approach for "universal" client-side navigation wrapping around web and native navigation libraries;
- I helped create an internal design system, building components and designing their APIs, with an emphasis on accessibility, universality between web and native, and ease-of-integration for developers;
- I participated in technical design and modelling discussions on the energy supply domain and our platform architecture;

Senior Software Engineer at Bulb, Jan 2022 - Dec 2022

I worked as a consultant from YLD for the energy supply company Bulb.

- I maintained the legacy energy usage charts in the mobile app, fixing issues in the React Native front-end, the backend-for-frontend Apollo server, and the back-end TypeScript microservices;
- I helped build a feature to allow users to see a breakdown of their household energy usage, with a data-ingestion pipeline using GCP PubSub and an integration to a third party providing the disaggregation model;
- I assisted and trained my team in designing backwards-compatible GraphQL schemas, emphasising stability in previously-released versions of the mobile app;
- I created a budget-setting feature to allow customers to track their energy usage, with mobile push notifications implemented in Firebase;
- I joined technical design discussions with technical leads and engineers.

April 2020 – October 2021: QMetric, London, UK

Senior Front-end Lead, then Technical Lead (from November 2020)

I took ownership of the JavaScript codebases within a home insurance platform.

- I maintained and extended a customer-facing app and a backoffice app for purchasing and modifying home insurance policies, with front-ends and backends-for-frontends implemented in React, Express, TypeScript, and RxJS.
- I provided technical leadership, architecture design, and support on a wide range of parallel projects and initiatives, including the front-end rebuilds of the insurance risk form, the payments page, and the landing page, as well as the introduction of user-behaviour-tracking analytics and A/B testing.
- I worked with business analysts and delivery managers to break down high-level business requirements into self-contained user stories for development.
- I participated in large-scale architecture discussions with the other tech leads and tech principals to plan the evolution of our cloud-native, event-driven, microservice-architectured insurance platform, implemented primarily in Java with Domain Driven Design.
- I conducted interviews for candidate front-end developers, as well as setting and marking take-home assessments.
- I organised and conducted onboardings, team training meetings, and technical design discussions within a fully-remote team.
- I initiated and assisted with multiple tech-debt initiatives, including the migration of the codebase away from RxJS, the Docker containerisation of the legacy services, and the introduction of browser-side error monitoring and reporting.
- I designed, prototyped, and initiated the implementation of a Microfrontend architecture across our front-end codebase to support multiple teams developing the same application in parallel.

August 2015 – March 2020: Mintel, London, UK

Software Developer, then Engineering Lead (from March 2019)

I gained a wide range of experience with legacy and new codebases primarily using React, Redux, Django, Solr, and Elasticsearch. I worked on multiple projects, including:

- Apps for aggregating and presenting direct marketing data and consumer survey data into tables, charts, and dashboards;
- Apps for searching, reading, and generating presentations from long-form market research articles;
- Internal tools for browser-based Selenium testing, visual regressions testing, and implementing a cross-

As the Technical Lead for a search app development team:

- I held responsibility for technical direction, tech-debt prioritisation, and code quality standards;
- I worked with Product Development and Project Leads to translate the business and technical requirements for new features into Jira issues for implementation by developer teams in London, Chicago, and Shanghai;
- I joined remote and in-person interview panels for hiring senior front-end developers, graduate developers, and interns.

In addition to my main project work:

- I designed and reviewed component APIs for the front-end component libraries, emphasising backwards-compatibility and extensibility;
- I helped found the "Front-End Chapter", a cross US-UK team group dedicated to sharing knowledge and best practices in front-end development;
- I gave talks on Visual Regressions testing, TypeScript, Styled Components, and design patterns in React;
- I held a half-day introductory workshop on React and our internal UI Components library;
- I ran a lunchtime "Coding Club" teaching front-end frameworks and TDD;
- I organised and participated in internal coding competitions on competitive game-playing AIs and image classification with neural networks.

Education

2011–15: Queen Mary University of London, London, UK

Degree: Doctor of Philosophy (PhD) in Theoretical Physics (String Theory)
As a graduate student, I authored multiple papers published in peer-reviewed academic journals, gave talks at multiple academic institutions, and taught Physics undergraduates.

2007–11: University of Cambridge (Christ's College), Cambridge, UK

Degree: BA with MMath, Mathematical Tripos, First Class/Honours Pass

Interests

Coding

I've contributed to various open source JavaScript projects, attended conferences and meetups on TypeScript, React, and GraphQL, and experimented in personal projects with Rust, Firebase, Svelte, NumPy, and TensorFlow.

Other

Board games, heavy metal, folk, sci-fi, fantasy, festivals, travelling, running, craft beer

View online