James Cleveland : Software Engineer making things in mainly Node.JS, React, Redux, and MobX State Tree

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I'm an experienced developer, working in multiple different languages across a wide range of commercial front-end, back end and DevOps and embedded contexts. I do my best work problem solving, optimising and finding new solutions and thrive in the challenges of the London tech startup scene.

CORE SKILLS

JAVASCRIPT

I love keeping up to date with bleeding edge patterns and technologies. I started using React and Redux when they were in infancy and have now veered towards MobX State Tree. I use TypeScript because having typed code is much more reliable and maintainable whilst enjoying the benefits of the latest ECMAScript features, such as generators, async/await and sane block scoping. I've built a huge variety of services using Node.JS and often Koa (or Express). I usually test using Mocha, Enzyme and Chai, but have also coded tests for use with Selenium. I'm also experimenting currently with ReasonML, because I enjoy programming functionally and declaratively and being able to harness the power of the OCaml language on the web is exciting.

DEVOPS

I manage clusters of applications and multiple developments using tools like Ansible, Docker and Mesos and have years of experience managing and deploying to complex Linux system and network builds as an administrator. I also have experience building automated deployment pipelines with tools like Concourse and CircleCI.

ARCHITECTURE

I'm always involved in planning the architecture of a system I'm building, whether that's analysing data and goals to create well thought out, efficient database schema, thinking about how to manage high volumes of traffic with scalable queue based systems, or deciding when a monolith needs to be rebuilt on a microservice based architecture.

DATABASES

Whilst starting from a traditional SQL background many years ago, it's important to analyse which database system is fit for purpose, so I've also extensively used NoSQL tools such as Redis, MongoDB, and Couchbase.

PROBLEM SOLVING

Whenever there's a technical emergency or others simply can't figure something out, due to the breadth of my knowledge and ability to think fast and methodically, I'm often the go-to person to fix things.

GOALS

I'm looking to work with companies where I take ownership of projects and am involved in architecture and building software from start to finish.

RECENT WORK

SAPIEN INTERACTIVE - LEAD FRONTEND DEVELOPER 2020-Present

A very new startup and a reboot of an earlier project I worked on, I was recruited by an old business partner to build the application for an app using React Native, MobX State Tree and Firebase. MST is interesting because it uses observables to achieve extremely high-performance whilst using mutable style updates and "flows" to manage side-effects, all with minimal boilerplate. Whilst I was initially sceptical due to having a preference for more explicit, functional style immutability that is used in redux, I approached it with an open mind and once I figured out MobX's observables and re-factored the codebase away from class components and into modern functional components wrapped by mobx-react observers and using hooks, I realised that the simplicity and elegance of the library were worth it.

ZOPA FINANCIAL SERVICES - SENIOR FRONTEND DEVELOPER - 2018-20

Jumping into the world of finance and Fintech, at Zopa I was leading the development of the credit-card part of their app, built in React Native and using redux as a data layer. I learned a huge amount about react native and was lucky enough that the developers there were into keeping a well maintained, up-to-date codebase that leveraged useful new tech, such as hooks, as soon as was feasible and appropriate. We also had a heavy emphasis on well-reviewed, well-tested code using detox and @testing-library/react-native. I also had a strong connection to the analysts and backend developers (even fixing a few of their bugs!) and learned about financial products and requirements in depth in order to be more effective as an engineer.

ON THE DOT - SENIOR FRONTEND DEVELOPER - 2017-18

I joined On The Dot (previously known as LastMileLink Technologies) in July 2017. I was a developer in the team responsible for the development of the front-end UI, mainly their allocation UI, which was responsible for controllers allocating deliveries and bookings to couriers. I was also part responsible for refactoring the entire codebase to use modern practises and patterns such as redux, redux-observable (for side-effects), and React 16. At this company I also started taking responsibility for several backend projects, and took ownership of the authentication framework (based on Auth0), authorization system (based on AWS Lambda and JWT), and various other services involving user management and automated API aggregation (using Swagger, AWS API Gateway, and Apigee).

SMARTFOCUS - LEAD FRONTEND DEVELOPER - 2015-17

Joining in March 2015, I was a Lead Software Engineer in the innovation and front-end teams at the London based marketing technology company SmartFocus, and built and rebuilt a vast amount of their frontend code and internal services.

In this role, I mainly worked with JavaScript/ECMAScript, React, Redux and Node.JS. I architected and built the mainstay three of their current and future products and mentored other engineers, creating patterns and practices that are widely commended within the technical team.

If there was a problem that needed solving or input required, for instance database architecture, general architecture, or being involved with the UX and general product design process, I was quickly been able to tap into my skills and learn whatever else is necessary to solve a problem or improve a solution.

LESS RECENT WORK

LEAD FRONTEND DEVELOPER, BOOTBAG (2014-15)

I worked prototyping and building the frontend for a startup using ReactJS.

TECHNICAL DIRECTOR, LINKS CREATIVE (2013-15)

I worked as Technical Director for a small Brighton based agency. Mainly using Django, AngularJS, jQuery and PHP, I took projects from ideas in clients' heads to fully developed products.

WEB DEVELOPER, FREELANCE (2010-13)

When I moved to Brighton I dropped myself into the deep end and rapidly learned to network, project manage, and rely on rapidly improving my technical skills to meet demand.

WEB DEVELOPER, PRIMROSE LONDON (2009-10)

I furthered my knowledge of PHP and systems administration, integrated Linux servers with Active Directory, and set-up version control using Git.

OTHER SKILLS/TECH

JAVASCRIPT

TypeScript, React Native, React, Redux, MobX State Tree, Flux, ReasonML, RxJS, Redux Saga, Webpack, Gulp, Mocha, ImmutableJS, GraphQL, Websockets, Socket.IO, ZeroMQ, Oao, Lerna

PYTHON

Django, Flask, Twisted, Cython, Jinja2, Celery

DEVOPS

Apigee, CircleCI, Docker, Concourse, Mesos, Marathon, ECS, Apigee

DATABASE

PostgreSQL, MySQL, Couchbase, MSSQL, MongoDB, Redis, GraphQL, CouchDB

FRONTEND

CSS, Bootstrap, SASS, LESS, Foundation, HTML5, XML

MISC

Git, SVN, BDD, TDD, Vagrant, Nginx, Apache, Agile, JIRA, Trello, C++, C, x86 ASM, C#, Qt, C30

ABOUT ME

I don't see programming and computers as simply a job, but part of who I am. I think the world is going through very interesting times and it will be passionate programmers and thinkers that will play an important part in shaping it. In Brighton I often helped out with putting on shows and DJing club nights. I enjoy going out with friends and finding new bands or other weird and wonderful things to do. I am a keen follower of current affairs, especially from a technical standpoint, and think a lot about the world and am interested by new developments politically and scientifically.