

mles.loveday@gmail.com

Personal Statement

I am a full stack web developer with experience of both greenfield and legacy projects in PHP and JS/TS (mostly React, some AngularJS and Knockout) and a little Java, having worked for clients including the BBC and David Lloyd Leisure.

I have written full SPA web apps and associated back end APIs from scratch for local businesses, including deploying to hosting servers. I have developed complex CRUD apps involving real time updates via socket.io, with asynchronous messaging (with rabbitmq) for expensive, slow operations.

Prior to becoming a developer I had a background in teaching secondary mathematics at top UK schools and studied Information Engineering at the University of Cambridge. I am a keen runner, and run several trail half marathons each year.

See [my Github profile](#) for a small assortment of my work, including the (now slightly ageing) Plough Books.

Employment History

08/2019 - present

Codevate

Software Developer

Working on a project as part of a small team for a firm doing equipment repairs and installation, the project handled scheduling tasks, safety checklists, stock management and finance, with a web interface and android app. As part of a modernisation push, I made some major changes to the project's structure:

- Upgraded the project from Symfony 3.4 LTS to 4.4 LTS, PHP 7.1 to 7.4, Elasticsearch 2.x to 6.x (amongst many other updates), moved the Angular 1.x app from a Grunt build to Symfony Encore, adding Typescript in the process.
- Updated the provisioning process to use Ansible Galaxy, and made changes to vagrant provisioning and major documentation improvements to simplify and speed up onboarding for new developers.
- Refactored the codebase out of multiple small bundles to take advantage of Symfony flex, enabled autowiring services by default and reduced the amount of manual config by an order of magnitude.
- Created a new React/Redux app to build new features with, and to slowly migrate old features into, replacing a real time notification tray as proof of concept. As part of this change, refactored two socket.io servers into one, reduced the number of sockets required and the overall complexity of the setup whilst maintaining functionality and extensibility.
- Introduced tests, and added ~1000 integration/smoke tests for basic piece of

mind and upgrade-related bug fixing.

- Added static analysis (PHPStan, PHP-CS) tools to help keep the code consistent and reduce basic errors.
- Improved page load speed on the worst offending pages

03/2018 - 07/2019

Self Employed

PT Dev / Stay at home dad

Part time developing a custom web project in PHP/Symfony, Typescript/React for a local pub to plan/manage staff rota, store accounting data, track revenue, receipts, labour rates, etc ([demo](#), [write up](#)).

As it was a project completed entirely by myself, I learned about provisioning production servers and vagrant boxes, having full responsibility for the entire stack, and living with my decisions. Most importantly I learned the importance of good communication with the client and the importance of a detailed spec.

Written in my spare time whilst being a full time parent to two children, still being used in place of existing systems and more feature rich (albeit less tailored and more expensive) alternatives as of March 2020.

02/2018

Softwire

Part time contractor

Contractor to help with a support backlog at my previous employer

08/2014 - 06/2017

Softwire

Software Developer

Developer working on various client projects including BBC Music and David Lloyd Leisure.

Largely learning the basics of good web development from an extremely good team of experienced developers on varied projects. A few key things I learned above and beyond the basics are:

- The importance of easy to read code
- The varying usefulness of different types of testing, and personal experience of the dangers of relying too much on automated testing in catching bugs in production code
- Lots of experience updating legacy code, when to make changes and when to hold back
- Lots of performance related work
- Very public front end work and preempting potential design issues

Gained experience in PHP, Java, JavaScript, Typescript, React, Redux, Knockout, MySQL

01/2013 - 08/2012

Walthamstow Hall,

Teacher of mathematics

Sevenoaks Teaching 11-18 year old students. Included IGCSE, A-level and Pre-U

09/2008 - 12/2012 King Edward's School, Birmingham Teacher of mathematics Teaching 11-18 year old students. Included IGCSE, A-level and IB.

09/2005 - 04/2007 Metsec Plc Project Engineer Designing and developing software to track issues in manufacturing, in Pascal/SQL Server

Skills learned

Front end web stack

Using Javascript & Typescript, Webpack, Grunt, Gulp, Encore for SPAs and enhanced functionality on non-SPA projects. Implementing React projects from scratch on a greenfield project (and various personal projects), updating a sizeable Knockout project to use Typescript to aid development

Cross-platform mobile with Phonegap

Developing for iOS and Android

Microservices

Developing with microservices, improving development where tickets change multiple services

Developing with and improving legacy code

Working with a large, monolithic codebase. Improving code readability through refactoring, adding and improving documentation and replacing poorly performing code. Debugging obscure bugs and applying fixes.

Performance testing and monitoring with Gatling and NewRelic

Implementing a Jenkins job and Gatling tests to get metrics for performance improvements before and after code changes; monitoring NewRelic and responding to issues; proactively looking for the next bottleneck and the next, least difficult, potential performance gains

MySQL query optimisation

Improving performance with targeted indexes and query tweaks

PHP development with Symfony

Symfony 3 & 4, with and without Flex, using Doctrine, Symfony Forms and Sonata

Working as part of a team

Developing standards to work to (linting, code review) and improving development process (e.g. documentation, speeding up tests run locally)

Testing

Improving unit test coverage, implementing integration tests. Worked with Phockito, Cucumber, Enzyme, Jest, Mocha amongst others

Education

2007 - 2008	Birmingham University	PGCE in Secondary Mathematics
Secondary Mathematics teaching qualification		
2001 - 2005	University of Cambridge	Information Engineering
B.A., Engineering (Information Engineering), 2:2		
Projects: 'Production Scheduling' & 'Image Processing'		
Modules: Signals and Systems, Systems and Control, Signal and Pattern Processing, Data Transmission, Computer and Network Systems, Software Engineering and Design, Introduction to Bioscience, Physiological Systems, Business Economics, Organisational Behaviour and Change.		
1994 - 2001	King Edward VI Camp Hill, Birmingham	GCSE, A-levels
Maths, Physics at A-level		AAA in Maths, Further
3 Grade A*, 5 Grade A, 2 Grade B at GCSE		
