

# Keith Cirkel

Senior Application Engineer at GitHub



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## About

JavaScript specialist with strong TDD experience. Passionate on delivering the best results working with a small and focused team. Strong Open Source advocate, committing to existing projects and creating new ones.

## Experience

### GitHub

June 2017 - Present

#### Senior Application Engineer

 <https://github.com>

Working on the Web Systems team, delivering GitHub.com's JavaScript

### Beamly

February 2017 - June 2017

#### Contract Javascript Consultant

 <https://www.beamly.com/>

Lead delivery for new Max Factor websites across all regions, including US, South America and UK markets. Using Node.js & Handlebars with a Drupal backend. Using Chai & Cucumber for testing.

## **Shark Finesse**

October 2016 - January 2017

### **Contract Javascript Consultant**

 <http://www.sharkfinesse.com>

Bought on for training role, upskilling existing team in Javascript, Node.js, AWS Lambda, TDD, Continuous Integration & Delivery, Agile & Scrum, Functional Programming. Porting existing ActionScript desktop app to Javascript using Electron, Node.js, Ramda & Sanctuary for Functional Programming, and Mocha & Chai for Unit Testing. Cultivated strong Agile workflow, strong TDD standards.

## **Financial Times**

June 2016 - October 2016

### **Contract Javascript Consultant**

 <http://www.ft.com>

Assisted in migration of users to "FT Next" - the new iteration of FT.com. Primarily involved in migrating existing ft.com CDN from Akamai to Fastly, utilising heavy custom VCL code. Developed robust VCL test suite with continuous integration and deployment through Fastly deployment APIs, using CircleCI. Developed multiple front-end features including anonymous user marketing components, using Node.js, Handlebars, and FT's own "Origami" component framework.

## **The Economist**

Invalid date - June 2016

### **Contract Javascript Consultant**

 <http://www.economist.com>

Bought on to train team on Node.js, React, TDD. Developed several microsites, assisted with architecture for overall web presence. Implemented continuous integration & delivery using semantic-release, Codeship, and Travis. Introduced strong unit test standards using Mocha & Chai. Architected tooling for painlessly provisioning new projects. Worked with team to cultivate strong open source standards, fostering a suite of open source React components, available at

<https://github.com/economist-components>. Assisted in the interviewing and hiring of new candidates to join the existing team.

## **Kingfisher PLC**

January 2015 - Invalid date

### **Contract Javascript Consultant**

 <http://www.diy.com>

Worked on a greenfield backend API communicating with SAP, using Hapi. Assisted in original architecture design, introducing Redis, Varnish, OAuth2 technologies, as well as architecture design for NFC authentication on the client side. Implemented Mocha and Chai for testing, with code coverage checking with Istanbul.

## **PhotoBox**

August 2014 - Invalid date

### **Contract Javascript Consultant**

 <http://www.photobox.com>

Brought on to fold Paper-Shaker incubator code into PhotoBox. Worked with existing team to bring additional Node.js expertise to their existing stack - built on Node.js, Restify, MongoDB, Memcached. Introduced Mocha & Chai. Introduced JSON Schema as a way of validating endpoint responses in integration tests. Helped with migration of site to HTTPS.

## **Autographer**

May 2014 - August 2014

### **Contract Javascript Consultant**

 <http://www.autographer.com/>

Developing the Autographer Desktop application for Windows and Mac. Replaced the position of the lead developer, inheriting the 22,000 line Backbone JS codebase. Worked extensively on addressing performance concerns and adding new features - introducing much simpler and more robust components with the Polymer framework. Worked with existing junior developers & testers

to cultivate a good working process, including introducing TDD using Mocha, Sinon and Chai, functional testing with Mocha, Selenium and Node-WD, and Code Reviews via Github. Assisted in the interviewing and hiring of new candidates to join the existing team.

## **BSkyB**

**February 2014 - May 2014**

### **Contract Javascript Consultant**

 <http://news.sky.com/>

Hired to lead the Sky News team to developing a new iteration of the website to Node.js, from Java. Implemented a scaleable and repeatable architecture using Node.JS, HAProxy and Redis automated through Chef. Introduced Mocha, Chai, Sinon to the team for more effective testing. Worked extensively training team members to use new ES6 technologies, such as Promises.

## **British Gas**

**November 2013 - February 2014**

### **Contract Javascript Consultant**

 <http://www.britishgas.co.uk/>

Developing a greenfield home automation product using ZigBee, web application and server side stack. Entered the project to introduce Node.JS to the team, develop the architecture and set up good working standards. Implemented a scalable architecture using Node.JS, Express, Redis, Cassandra, and MQTT for communicating with hardware. Consulted on hardware architecture and assisted in early developments. Guided the team through the ZigBee spec and implementing it across firmware and server side software. Cultivated strong working standards using enforced code reviews via Github pull requests and TDD using Mocha and Chai. Replicated the ideals through other Node.JS projects in the organisation.

## **British Gas**

**November 2013 - February 2014**

### **Contract Javascript Consultant**

 <http://www.hivehome.com/>

Developing the HiveHome.com web application & brochure site. Web development using Node.JS, Express, Redis, Backbone JS, D3 for Data Visualisation and Mocha and Chai for TDD, WebDriver and Selenium for functional testing. Extensive use of external APIs including integration with existing Salesforce platform. Introduced MVC Server Side concepts to the team. Developed a complementary internal telemetry dashboard using Dashing framework with custom build widgets. Introduced strong working set up using enforced code reviews via Github pull requests.

## **Electronic Arts**

**November 2013 - February 2014**

### **Contract Javascript Consultant**

 <http://www.ea.com/>

Working on the Origin Mobile & Social application, featured in Fifa 14 mobile version. Entered the project to improve the existing codebase and outline strong standards across the team. Mobile JavaScript development, using Backbone JS, with Zepto and Underscore, using Jasmine for TDD. Extensive work in touch events & mobile optimisation. Created build automation & tooling with Grunt JS, and developed acceptance testing using WebDriver, across desktop and mobile. Conceptualised mobile debugging toolsets for developers.

## **LexisNexis**

**November 2013 - February 2014**

### **Contract Javascript Consultant**

 <http://www.lexisnexis.co.uk/>

Porting a silverlight application to JavaScript, using Backbone JS, Raphael JS, with jQuery and Underscore. Built to be cross compatible, public facing application. Introduced very strong TDD standards using QUnit and Sinon for frontend, and BDD with Cucumber JS and WebDriverJS (Selenium). Introduced a good standard for Documentation Driven Development. Introduced GIT to the team, as well as using Jenkins for CI tasks. Assisted in hiring process for new candidates.

## **BSkyB**

**November 2013 - February 2014**

## **Contract Javascript Consultant**

 <http://www.sky.com/>

Working on a internal project for BSkyB's call centres in an Agile software team using Javascript technologies including jQuery and Backbone JS. Entered the team to develop and expand on existing prototype. Implemented strong OOP architecture using Backbone JS with jQuery and Underscore. Use of Sass for CSS stylesheets. Utilizing latest HTML5 and CSS3 and Javascript technologies, including WebSockets with Socket.io. Introduced strong TDD standards using QUnit and Sinon for frontend. Improved End-to-End functional testing using JBehave and Behat. Created custom Open Source libraries fit-for-purpose including R.js (internationalization) and Jwerty (key binding). Contributed patches to Backbone JS core. Migrated team from SVN to GIT to help improve productivity. Assisted in hiring process for new candidates.

## **Xcite Digital**

**November 2013 - February 2014**

### **Frontend Developer, Head of Creative**

 <http://www.xcitedigital.com/>

Lead Frontend Developer, turned Head of Creative, working with many key clients. Developed and maintained large income client projects developed in Symfony 1.4, utilising jQuery for all frontend interactivity. Involved in key technical decisions, liaising with clients and suppliers and organising and managing other team members. Managed a series of virtual dedicated Linux servers, running Cherokee web server with MySQL and PHP. Introduced GIT to the team with no existing version control.

## **BrightHue**

**November 2013 - February 2014**

### **Founder**

Founder of a Digital Agency. Developed and designed sites for large clients, utilising technologies such as PHP, MySQL, Javascript & jQuery. Managed and maintained virtual dedicated servers running a LAMP stack.

November 2013 - February 2014

## Freelancer

Worked with small clients developing and maintaining websites utilising technologies such as PHP, MySQL, Javascript & MooFX.

## Volunteer

## CodeClub

January 2013 - Present

### Teacher

 <https://codeclub.org.uk/>

Mentoring 9-11 year old pupils on how to program, using the Scratch programming environment.

## Publications

 *JavaScript Recipes - A Problem Solution Approach* in Apress, 22 December 2016

This comprehensive book is your go-to reference for tackling common and advanced JavaScript tasks. JavaScript is the world's most popular client-side scripting language and is gaining popularity on the server. Using a problem-solution approach, this book takes you from language basics like built-in objects and flow control all the way to advanced optimization techniques, frameworks and Node.js. Quickly discover solutions to common problems, best practices you can follow, and everything JavaScript has to offer.

## References

“ Keith's a very highly skilled JavaScript specialist. Over the time we worked together he acted as a focal point for expertise across front-end and also back-end work, as a result of his strong experience with Node.JS. Very proactive and understands problems. Keith's able to come up with solutions and voice them articulately. Highly recommend. ”

Calum McGee

“ I've hired Keith in the past so I was very keen to get him in at Sky to work alongside. I have not met anyone with Keith's natural flair for frontend development before, and every time I see him I learn something new. I would have no hesitation in placing Keith in charge of any size project as

I know he will deliver. Keith's very quick to fix issues as they arise and isn't afraid of hard work when it's required. I would work with him in every contract role I do if given the choice. ”

Tom Cooksey