

Kieran Allen

Software Engineer

& Director of KJA TECH Limited

<http://uk.linkedin.com/pub/kieran-allen/22/339/ba5>

Personal Statement

I'm an experienced Backend Developer and have been developing websites for over 10 years, commercially 7. I have worked on a wide range of products, from startups to one of the world's largest gaming sites. I like to be challenged and enjoy solving complex problems.

Outside of work, I tinker a lot in application security and have a few personal projects which I work on when time permits.

Employment History

Director @ KJA TECH Limited, Mar 2014 - Current

I setup my software business to provide companies with high quality developers who specifically suit their needs.

Clients:

Isabella Oliver Limited Jan 2014 - Feb 2014)

www.isabellaoliver.com & www.baukjen.com

New contract to implement the following:

- Fixes to Google Merchant Feed
- Implementation of vast array of Google Analytics tracking events
- Implementation of "Shop The Look" feature on the Wordpress stack
- Setting up Jira processes, including an Agile workflow.
- Assisted in release of new features
- CSS, HTML & Javascript front-end work.
- Worked with the Google Analytics API for daily statistics

Collective London Ltd (Nov 2014 - Dec 2014)

www.hyundai.co.uk

Taken on board to work solely on the hyundai.co.uk website as the lead full stack developer. Focused primarily on:

- Cleaning up AWS stack - Lowered hosting costs by 20%
- Implementing real-time monitoring (New Relic)
- Switched to a load balanced site, with a high level of redundancy
- Optimised the site significantly - Pre-optimisations site weighed over 6MB, after 1 week it was down to 1.4MB.
- Implemented Lsyncd for asset replication.
- Implemented security scanning software for common attack vendors

Technologies Involved:

- PHP / Python
- MySQL (RDS), Redis (ElastiCache)
- Lsyncd / inotifyd
- Linux / AWS / RDS

Isabella Oliver Limited (Sept 2014 - Oct 2014)

www.isabellaoliver.com & www.baukjen.com

Contract involved:

- HTML, CSS3 optimisation and bug fixes
- Manipulating multiple Google Feeds (XML)
- Wordpress plugin development
- Working with marketing team to implement new features
- Implementing more streamlined development procedures, including Jira and scrum.
- Selenium

Miniclip Limited (Jun 2014 - Sept 2014)

Taken on to replace payment provider and implement a new, more stable and streamlined payment process. Involved:

- Refactoring existing codebase into a more abstract system, to allow for future integration of more payment solutions
- Writing testable code, and implementing Unit Tests, increasing code coverage to over 70%
- Significant Documentation effort - Making sure all parts of the system are easily understood

Jagex Limited (Apr 2014 - May 2014)

Worked on a new project within Jagex called UemeU, a sandbox world game. Was contracted

to:

- Create a high performing heartbeat server for statistics - Written with Java in the Play Framework, uses MongoDB as the primary persistent data store.
- Remove AngularJS from existing site, implement a new design in Bootstrap 3
- Implement license management suite
- Setup Capistrano for software deployments

PHP Developer @ Neon Play, July 2013 to Feb 2013

Mainly working on and with Amazon Services (EC2, S3) I've had the responsibility of developing various systems.

- Amazon (EC2, S3)
- PHP, MySQL - database design
- NodeJS (including ActionHeroJS)
- Memcached, Redis (player leaderboards)
- Bootstrap 3
- Laravel 4
- Security planning (Providing in-depth information about potential attack vendors)

Projects @ Neonplay

Note: Due to the highly confidential nature of this project, I am unable to divulge any game-specific information.

Administration Dashboard

Creation of an Administration dashboard using the Laravel MVC framework as a base. This system is to be mainly used for creation of dynamic game events and tutorials, it provides a full work-flow for releasing content and manifest data.

API Development

Needed to create the game-specific CRUD API methods for a RESTful JSON API. These methods needed to be highly scalable. Part of this task was supporting client developers and integration of said methods.

Bot testing

One of the core projects involved writing a scalable, configurable game testing solution - which was designed to achieve the following goals:

- **Load testing** - needed to be able to test different volumes and

concurrency rates.

- **Economy testing** - It was important to see if the game economy reacted in the linear way expected.
- **Statistics** - Needed to see if the right data was sent to the Hadoop cluster.

The software was written in NodeJS and recreated the gameplay existent in the C# client. It was written to be horizontally scalable - so if the volume needed to be increased, another Amazon EC2 instance could be added on-demand.

Introduction of Unit Testing

I managed to convince stakeholders that Unit Testing core components was vital. Within a month we had significant code coverage and the API was much more stable.

PHP Developer @ Miniclip.com, July 2010 - May 2013 (2 years 11 months)

At Miniclip the majority of my work involved writing new software and features, securing the site and optimising existing software. Some of the technologies/skills required for this role (I've highlighted what I found most interesting):

- MySQL (MariaDB)
- PHPUnit
- Memcache
- Javascript / CSS3 / PHP5
- **High volume, transactional systems**
- Payment Gateways (inc. PlaySpan, PayPal, Global Collect)
- **Large scale data migration**
- Front-end Optimisation
- **Security Auditing** - XSS/CSRF/SQL Injection
- Agile, scrum (Stand ups, Using software such as Jira, ScrumDo to assist)
- Automated Builds (CI) Jenkins/Bamboo
- **Low level optimisations** (using tools like strace, tcpdump, tshark)
- Extreme Debugging
- Working with Remote Teams
- Pitching ideas to Directors and getting approval to develop prototypes

Projects @ Miniclip

8 Ball Pool Multiplayer

API:

At Miniclip I worked on the initial implementation, and followed through the development of a RESTful API. The system had to be stable and secure - The stack had to require near to no configuration, so that new instances of the API could be created when required. It had to be low on resource usage and key parts needed to be unit tested. The game relied on this API for validating user credentials, tracking users scores, profiles and logging analytical data.

Graphing

When I joined Miniclip there was a lack of monitoring and historical analytical data. On the daily commute I created a near real-time, custom generic graphing solution. It is now plays a vital part in monitoring many data points in almost all of Miniclip's Multiplayer games.

Links:

<http://www.miniclip.com/games/8-ball-pool-multiplayer/en/>

<https://itunes.apple.com/gb/app/8-ball-pool/id543186831?mt=8>

<https://play.google.com/store/apps/details?id=com.miniclip.eightballpool>

Virtual Currency (Miniclip Credits)

I was tasked with creating a Virtual Currency for Miniclip - to create another revenue source from games. One other developer and I, planned, implemented and released a Virtual Currency which now is used for the biggest Miniclip games. It includes a full suite of real-time monitoring tools, administration tools (implemented into the intranet - which is written in Zend)

Legacy code Migration

Another project I started at Miniclip was the migration of the existing, procedural, pre-rendered code to Object Orientated PHP. I planned the migration of the codebase, backend tools - which also gave us the opportunity to redesign and optimise related database tables. The entire site was migrated into a MVC framework, which massively outperformed the previous solution - not only in performance, but also in how much quicker and easier development was. The new codebase had high code coverage and was built using Jenkins.

Security Auditing

I was also tasked with finding potential security holes in the existing codebase.
Ask for more information.

Lead PHP Developer @ Abovo Creative, Jan 07 - Jul 10 (3 years 7 months)

At Abovo Creative I was responsible for managing both internal and external development. As a small agency with over 30 clients I had to plan and work on multiple websites, most of the time with very strict deadlines. A lot of work involved maintenance of legacy code-bases and patching various security holes. Some skills required:

- Rewrote legacy systems into CodeIgniter, type of products included:
 - eCommerce solutions
 - Advanced Content Management Systems
- MySQL (MariaDB)
- Javascript / CSS3 / PHP4&5
- Project Planning
- Different Content Management Systems (Wordpress, Custom, etc)
- MVC Frameworks (CodeIgniter, CakePHP)
- Supporting Legacy code
- Linux Server Administration
- Implementation of multi-site backup solution
- Transactional systems

Founder, MafiaWarz, 2005 - 2006

Not to be mistaken with the massive Facebook game, MafiaWarz was a online, text-based game which I developed when I was 13. It was a project which quickly grew, and I learnt how to write scalable code and patch security holes. This was how I learnt PHP. The game had a vast array of features and was integrated with a payment SMS API and PayPal.

- Development of game from scratch
- 200 concurrent users
- Implementation of Payment Solutions (DaoPay, PayPal)
- LAMP stack
- Game mechanics

- User-facing support

Other Projects

Outside of full-time work I've helped out on a lot of projects. Here is some detail on the ones I can mention.

ReadWave

www.readwave.com

At ReadWave I developed a mobile web application, to allow users to read short stories offline. I worked on both the Front End and backend.

Backend:

1. PHP - implemented into existing MVC Framework - Creation of simple HTTP endpoints to pull JSON encoded data relating to stories.
2. Using Twig template engine

Frontend:

- HTML5, Javascript APIS:
 - Local Storage
 - History API
 - Cache Manifest
- Bootstrap
- jQuery

Security Auditing

Occasionally when I have the time I help companies out with security. I look for common exploits in their websites. I do this to better my understanding and learn more about this particular area.

Key Skills

PHP

I've been writing websites in PHP for over 12 years, commercially over 7. I write clean, Object Oriented code. I always have scalability in mind when writing code.

MySQL / SQL

I've been working with MySQL for as long as I've been working with PHP. I'm able to setup, tune and scale MySQL instances to handle high traffic situations. I can implement sharding, replication and triage performance issues.

NodeJS

I have an advanced understanding of NodeJS.

HTML / HTML5

My experience with HTML has slowly trailed behind my PHP experience. I have also triaged HTML performance and rendering issues, and generally can fix most HTML problems. I love debugging.

Javascript

I have an advanced understanding of Javascript Object Orientated patterns.

Redis, Memcache

I've worked with Redis and Memcache in a commercial environment where the caching infrastructure was vital.

Frameworks I've used

- **CakePHP** - Used this for a fairly complex system, which was heavily data driven. Also used a lot on personal sites, and when Freelancing.
- **CodeIgniter** - Used for a variety of projects at Abovo Creative
- **Zend Framework** - Used at Miniclip and personally, have good experience.
- **KohanaPHP** - Used for a few personal projects.
- **LaravelPHP** - Currently using this for personal projects.

APIs I've used

- Facebook's APIs - Deprecated Rest API, Graph API (implementation of Single Signon)
- Twitter - Implementation of single signon
- Google Analytics API - Pulling data into a custom dashboard using Service Accounts
- PayPal - Implementing IPN, etc
- PlaySpan - Implementing IPN
- Glass' Guide (SOAP) - Implementation of VRM Lookup (Vehicle Registration Lookup)

Career Achievements

Integrated Facebook "Play" action for games – resulted in 100s of million impressions.

Implemented new Caching Layer using APC, works consistently over 300 web servers.

Secured the Miniclip website and patched various security holes.

Planned and Implemented a Virtual Currency with full documentation and an API for game developers. Also included a real-time monitoring solution with live graphs and daily reporting.

Tightly integrated Facebook OAuth into an existing user system (**20m users**) resulted in a dramatic increase of registrations. Now the sole source of user registrations (**over 30k new users a day**)

Developed a highly optimized MVC for the new Miniclip website – Dramatically **decreased loading times** and **lowered development** time.

Implemented full **unit test suite into** framework, with full mocking.

Migrated the **largest database** into a new, more optimized system. **Downtime was minimal.**

Developed a generic, **real-time graphing solution** for multiplayer games – now is the first system to notice when a game is crashing, or down.

Developed a **highly optimized backend** for Miniclip's largest Multiplayer game –

8 Ball Pool Multiplayer. **Over 100 pool games are completed a second.** (over **8m** pool games played a day)

Developed software to import thousands of products from differently formatted spreadsheets (for converse)

Integrated raw car valuation data into an online database – was able to provide a **car valuation** from just the number plate (used an external **VRM API**)

Developed an online text based Mafia game from scratch (MafiaWarz) which went on to peak at **200 concurrent users**. Later sold.

Finding **security exploits** on the following sites:

1. virgingaming.com
2. virgin.com
3. santander.com
4. nationalrail.co.uk
5. ladbrokes.com
6. asos.com

etc.. (more on req)

Training

Google Analytics Premium

- Basic training course for GA Premium at Google's London offices.

Server Administration

- Visited Miniclip's Florida Datacenter for a Month and spent time learning more about the infrastructure.

PHP London UK

- Attended PHP London UK

Education

A-Levels – Business Studies, English Language, Computing
Long Road College, Cambridge

10 GCSE'S including Maths, ICT, English

Bottisham Village College, Cambridge

References

As usual - Available on request, but here is what a few people say about me (you can see these on my LinkedIn profile):



Dave Shanker

Experienced Business Professional

Kieran is a super talented, highly motivated, & overall a great person to work with. He's always been at the forefront of emerging technologies and is always eager to share his insight into those technologies and how to successfully implement them. In short, he's a huge asset!

June 19, 2013, Dave worked with Kieran at Miniclip



Brian Chadwick

General Counsel - Miniclip SA

Kieran is knowledgeable, creative and incredibly hard-working. He has an outcome-focused approach to problem solving, which I admire. In my experience he handled the stress of tight deadlines and a vast workload very well.

April 19, 2013, Brian managed Kieran indirectly at Miniclip



Pieter Kooyman

Director of Advertising at Miniclip.com

Kieran has an uncanny ability of digging into any problem or challenge given to him, and not letting go until it's fixed, improved, optimised, etc. He has a reputation where "if you want to get it done, ask Kieran." In

addition to this, he was a real pleasure to work with!

March 27, 2013, Pieter managed Kieran indirectly at Miniclip



Ben Gillbanks

Director of Web Development at Miniclip (UK) Ltd

Kieran is a talented young man. He has a thirst for knowledge and a very creative outlook. He is always coming up with new ideas and loves to work on new projects. He takes a lot of pride in his work and enjoys creating awesome content.

December 12, 2012, Ben managed Kieran indirectly at Miniclip



Joshua 大砲 Butcher

Lead Data Architect/Lead DBA/Database Manager - MariaDB/MySQL

During my time at Miniclip, Kieran was one of the best people I could have hoped to work with there. Kieran is energetic, bright, motivated, super intelligent, and able to write any amount of code necessary to do just about anything that is necessary. It is my hope that one day I may get to work with Kieran again. If you need to know anything else, don't hesitate to contact me.

November 16, 2012, Joshua 大砲 managed Kieran indirectly at Miniclip