

# ALEX SPURLING

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## SOFTWARE DEVELOPER

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### Profile

I like to build software to the highest possible quality and focused on customer needs. I believe in constantly looking for the tools and processes that can make that happen.

I am a strong supporter of automation, short iteration cycles and use of analytics to detect problems and drive development.

I have over 7 years' experience working in Agile teams developing Java and Javascript web applications but am looking to broaden my experience to new languages and problem domains.

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### Experience

#### Rubric - Process Automation

2017-Current

Rubric is a localisation company translating English software to 40+ languages.

##### Extracting English Source Text from Client Supplied Files

I wrote Java plugins for the World Server localisation platform which parsed JSON, YAML, XML and other file types in order to extract their translatable strings.

- Created a generic architecture for chaining different file parsers together. This was necessary for example for parsing HTML nested within JSON nested within XML.
- Worked closely with project managers to make parsers configurable to match behaviour required by different clients.
- Wrote Javascript front-end and Java servlets integrated into World Server to allow project managers to perform bulk operations on their projects.
- Created a machine translation plugin using the Google Cloud Translation API.

Technologies: java, html, javascript

##### Project Automation

I wrote interactive Python scripts to prepare files received from clients for translation, and translated files for delivery back to clients.

- Wrote pre- and post-processing scripts to standardise file formats and structure of each client's deliveries.
- Created a diffing algorithm for key-value data comparing 4 different file versions simultaneously.
- Created a Excel reports using the openpyxl library.
- Created a deployment system for our Python scripts based around git and Python virtual environments.

Technologies: python, git

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#### QMetric Group Limited - Server Side Developer

2012-Current

QMetric is the technology company behind the new insurance website Policy Expert which combines insurance sales with price comparison and brokerage into a single service.

##### Server Side Development

I was responsible for the development of their new generic insurance platform which allowed us to launch several new insurance products including motor and home insurance. I worked on the java/groovy backend which used an CQRS and event-sourcing architecture backed by MySQL and MongoDB. I also worked on the javascript front end using AngularJS and Backbone.

- Worked closely with business analysts to develop new features delivered and deployed in weekly iterations.
- Integrated our system to several third-party services including the Insurecom Car insurance platform.
- Created an operations web application for defining arbitrary insurance products using AngularJS.
- Created a Dropwizard microservice to provide data access to a legacy application.

- Created a chat room bot to trigger deployments to development environments.

Technologies: java, javascript, groovy, kotlin, dropwizard, mysql, mongodb, AWS

Techniques: CQRS, event-sourcing, Agile

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## Playfish - Server Side Developer

2010-2012

Playfish was the UK's leading developer of social games. I was responsible for developing the server side Java web application technology for games handling up to 10m unique players per day.

### Game Development

As a server developer, I worked on two major games, Restaurant City and The Sims Social, at their peak reaching 5m and 10m daily players respectively. The Playfish architecture is heavily service-oriented and hosted entirely by Amazon Web Services. I was responsible for developing high quality features in collaboration with game designers, PMs, QA and other development teams.

- Built monitoring page for The Sims Social to visualise the real time performance of our games.
- Improved performance by analysing thread dumps, heap dumps and garbage collection statistics.
- Automated the Maven build process by writing a command line script in Ruby saving hundreds of hours of developer time.
- Modularised the game code for Restaurant City by converting the build process from ant to Maven.

### Game Content Management System

The Playfish Content Management System is a tool designed to speed up iteration cycles and eliminate errors for all our games' content. Built on top of the hierarchical database Jackrabbit, it supports locks, transactions and branching for game content data.

- Helped to design a clean and consistent REST API for clients to interact with the server.
- Implemented REST services on the server side using Jersey.

### Evangelism / Training

- Presented an introduction to git
- Presented an overview of OSGi
- Presented an overview of Datomic
- Ran training sessions on git for SVN users over 5 weeks

Technologies: java, jersey, guice, ruby, svn, git, maven, mysql, xml, Amazon Web Services

Techniques: TDD, Agile

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## Markit - Associate Developer

2007-2010

Markit's primary business is the calculation of prices for derivative financial instruments by the aggregation of prices provided by banks. I was part of the development team of their CDS product and starting in 2008, the Clearing service.

### Clearing Project

- Lead developer from the start of our high profile Clearing service to provide banks with reference prices for CDS and credit index instruments.
- Developed a web application to receive and process XML price feeds based on Java, JEE, Spring and Oracle.
- Developed a Java algorithm to calculate CDS prices and trades from contributed bid/ask prices using a simulated auction process.
- Mentored and guided other team members in their general development practices.
- Aided the project lead with planning, estimating and architecture and design decisions.

During the project, I suggested and implemented many improvements to our development process such as:

- Moved build process from Ant to Maven.
- Created RPM distribution mechanism for managing deployments.
- Reduced human error and downtime by automating our database upgrade process with a perl script.
- Implemented continuous deployment to our development server using Maven, Hudson and some custom deployment scripts.

- Created a suite of regression tests with TestNG which would run automatically after each successful deployment.

#### Other Projects

- Created a batch task to calculate composite loan credit index prices (aggregation of contributed prices).
- Re-architected our caching mechanism to give clients access to historical reports.
- Implemented a historical record for client mappings (i.e. the data a client is subscribed to) to allow reports to be generated for past dates.

Technologies: java, jee, spring, ruby, svn, maven, oracle, xml

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## Education

### University of Cardiff

2003-2006

#### Computer Science BSc

- Graduated with 1st class honors (79% overall mark).
- Won the LogicaCMG prize for best final year project.
- Won the British Computer Society prize for excellent first year performance.

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### Berkhamsted Collegiate School

2001-2003

#### A Levels

- Physics — B
- Maths — C
- Chemistry — C
- French (AS) — A

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## Projects

Some projects that I've worked on in my spare time are publicly viewable:

- Android Restaurant Search app: <https://github.com/alexspurling/mimi>
- The Marylebone Mountaineering Club website: <http://themmc.org.uk> configured using an Ansible playbook: <https://github.com/alexspurling/themmc/>.
- Nationwide OFX download tool: <http://code.google.com/p/ofx-downloader/>.
- Mandelbrot fractal renderer written in Clojure: <http://developmentjungle.wordpress.com>.
- More can be found at my Github profile: <https://github.com/alexspurling/>.