

PERSONAL

Stephen Rycyk

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EDUCATION

BA Hons in Philosophy (2:1)

Post Graduate Diploma in Computing

MSc in Multimedia Computing

OVERVIEW

Versatile and productive software developer specialising in web applications with Ruby on Rails and Java Script.

Decades of commercial experience as an analyst/programmer across a broad range of organisations.

Participated in over fifty projects involving user-centred database applications, which used numerous languages, methodologies, idioms, toolkits and frameworks - mainly in development but also in analysis and support.

Have worked in diverse application areas which include accountancy, housing, leisure, education, banking, health care, transport, e-retailing, billing, stock control, payroll, handling credit cards, slot booking, portals, and messaging (e.g. email & SMS).

Knowledge of object-oriented analysis and design, MVC, Agile, TDD/BDD, applying design patterns (Go4) & principles (SOLID), OR mapping & domain model design, version control, internet protocols, basic site design, support (problem determination, impact assessment & non-invasive fixes), web server installations, prototyping, refactoring, legacy system interfacing, software engineering, UML, and project documentation.

Ability to write tight tidy modular OO code, to quickly sight-read an application's source, and to break requirements down into re-usable decoupled encapsulated steps.

TECHNICAL SKILLS

Ruby	10+ years	Rails, the standard library, and many of the widely-used gems, for instance: RSpec, Minitest, Factory Girl, Capybara, Nokogiri, Faker, Devise, Devise Invitable, Oauth, Doorkeeper, HAML, Can Can, AWS-S3, Resque, Paperclip, Couchbase, LDAP, Octopus, Kaminari, Will Paginate, Draper, Cucumber, Jekyll, various Bootstrap helpers, Geokit, Mechanize, Simple Form, Nested Form, Heroku, Red Hat Cloud, and Twitter.
Internet	20 years	Java Script (jQuery, jQuery UI, Coffee Script, React), HTML, CSS, Twitter Bootstrap, POP/IMAP, SMTP, SOAP
SQL	25 years	PostgreSQL, MySQL, Oracle, Sybase, SQL Server, SQLite, normalisation, schema design
Unix	25 years	Linux & Solaris, (also HP-UX, BSD, AIX), shell scripting, system installation & maintenance (intermediate level - mostly a user)
Languages		PHP (3 years), Java (3 years), Perl (6 years), C++ (5 years), C (7 years), MUMPS

COMPUTING EXPERIENCE

Business Cloud Essentials, Advanced, Mailbox, Birmingham 2019-2020 (Contract)	<ul style="list-style-type: none">◦ http://www.oneadvanced.com/solutions/businesscloudessentials/ Business management site for SME manufacturers to administer their company from a single source. Mostly in Rails (5.0), but with a lot of front-end JS.◦ Worked on the invoicing modules, which integrate sales quotes, sales orders, sales invoices, purchase orders, purchase invoices, and credit notes.◦ Added new features for each of the invoice types listed above, to allow incorrectly completed fields to be easily amended. These included role-based selective field editing, and, for more serious entry mistakes, reversing (i.e. a cancellation of) an existing invoice, providing an ability to re-issue with corrections to fields taken from the original (cancelled) invoice. <i>This functionality performs several supplementary tasks, such as replenishing the stock inventory, altering various fields to be in line with the current date, and ensuring that the new invoice differs significantly from the old.</i>◦ Developed a new module for bulk multi-currency payments to a subset of suppliers. This reconciles payments of all due purchase invoices with credit notes and outstanding sales invoices. It has an option to select individual purchase invoices so they may be fully paid, partly paid, or not paid at all. It produces remittance advice that's sent to the suppliers, and prepares data for a funds transfer (BACS) that's recorded on a ledger.◦ General bug fixing for things like PPI field edits, stock control, applying per-customer discounts, and front-end enhancements.
Various 2017-2019	<ul style="list-style-type: none">◦ Freelancing jobs in GDPR compliance and education using Rails.◦ https://github.com/srycyk/in_order A Rails engine that implements a linked list in SQL. The list has a composite key, by which a series of models are linked together in a specified order. The functionality has a multiplicity of <i>real-world</i> uses, allowing relationships to be set up between any models you choose, and without altering any original code. The API is fully-featured, giving you full control in editing a list's elements.◦ https://hmrc-mtd-vat.herokuapp.com A site to submit and list VAT returns using the MTD (<i>Make Tax Digital</i>) API. It has an Oauth HMRC login, and a number of forms that permit organisations to fulfil their VAT obligations. <i>It's currently a demonstration - almost ready to go live.</i>◦ http://niads.co.uk An attempt to broaden my options by becoming self-employed. To promote this venture, I've written the scraper (below) to find potential clients by extracting data from business directory sites.◦ https://github.com/srycyk/mine A web-page scraping framework built from scratch. It has numerous features, like proxy rotation, cookie keeping, full error recovery, data extraction utilities, HTTP logging, local file-system storage, a simplified command-line interface, several run-time modes & options, and, if halted, it continues from where it was. Although quite intricate inside, it exposes a simple top level interface that cuts down the retrieval of a set of related pages into a few lines of code.◦ https://github.com/srycyk/templet_rails A Rails mini-framework that replaces traditional controller and view scaffolding. It dispenses with markup scripts (ERb, HAML, etc.) and (your own) custom Helper methods. Instead, view rendering is carried out by a Ruby class, which is called from, and is similar to, a regular controller. It provides a bit more functionality than scaffolding does, but more, it encourages a wholly object oriented approach to writing views. To see how the framework works, the best place to start is the demo Rails application, templet_demo.◦ https://github.com/srycyk/visitor A small standard Rails site to bookmark URL's. It has nested tagging, imports & exports, and DRY'ed up views.

- <https://github.com/srvcyk/radio>. A rough, but ready, site that lists BBC radio programmes. It has a Rails back-end and a React front-end. I wrote it mainly to practise React, but I do use it myself.
- FMA,
Boulder,
Colorado,
USA
2015-2016
(Full-time)**
- Development for a property information service provider, First Movers, using Rails, Bootstrap, jQuery, and Mysql, with Github, Pivotal Tracker, and Semaphore.
 - Rewrite of an administrative website to manage customer services, including geo-location searches, user enrolment, credit card registration & charging (with Authorize.net), invoicing, API accessing, and data distribution.
 - Enhancements to <http://proxyrain.com>, a IP address balancing proxy service, and minor changes to an account management site for clients' private use.
- Arrk
(National
Union of
Students),
Manchester
2014-2015
(Contract)**
- Development for an award winning responsive site, unioncloud.org, serving 80 unions with very many thousands of students in each. Every union has its own subdomain, for example, Manchester University is umsu.unioncloud.org and Sheffield starts with *ssu*.
 - Produced decoupled modules for the mass registration of students, receiving data (as CSV and JSON) via HTTP API's and an FTP drop-in. Once received, the data needed to be transformed into a standard format, and then validated.
 - Wrote a module to collect and distribute credit-card transaction data to third-party systems.
 - Improved the performance of a financial transaction report that made it about a thousand times quicker.
 - Additions to an event booking and ticket redemption module.
 - Synchronising data with an external loyalty points system, sending periodic email notifications of points accrued from on-line purchases.
 - Gathering statistical data for marketing analysis that targets specific audiences, like sports club members.
 - Performance tuning, bug fixing, VM (Cent OS), Zen Desk, New Relic, Postgresql configuration, and preparation for merchandise data imports.
- Freelancing
2014**
- Developed an email-based app, for estateagencyallstars.co.uk, that receives, reconciles and delivers emails (to estate agents) from job applications (consisting of a CV, psychometric test and video presentation) by aspiring estate agents.
 - Developed a web-based thesaurus showing metaphors and referential information, for Rowdy Labs, USA.
 - Prepared course material introducing authentication in Rails, for gotealeaf.com.
 - Developed a prototype CRUD-based Rails app for a clothing inventory in a US warehouse.
- Security
Icon, London
2013-2014
(Contract)**
- Analysis and development of an administrative dashboard (in Rails) which interfaces with credit card payment gateways. The UI provides extensive search capabilities, detects misuse, compiles statistics on card transactions, creates tiered accounts by invitation (Devise) and also uses a Bootstrap template for a pleasing design.
 - Synchronising Couchbase & SQL data-bases, querying Couchbase, realistic data generation, graph drawing using the RGraph JS library, role-based access authorisation, API compatibility, Ubuntu system configuration and deployments.
- Self-Employed
2012-2013**
- Short-term freelancing projects which included an application for registering parcel deliveries, data-base population (from JSON to normalised SQL), time-slot reservations, web-page scraping, and the development of a skeletal Rails application (for wire-framing) using custom generators, Inherited Resources, generic templates, Devise and Twitter Bootstrap 3.
 - Worked on <http://runabook.co.uk> which is a pooled betting game for groups of friends to bet on any upcoming sporting fixtures, but it didn't prove popular. It's in Rails and deployed on Heroku, it has 15K lines of code. Wrote a set of Ruby scripts using the Twitter API to target potential users of this game.
 - Also developed, github.com/srvcyk/thesaurus - two one-page thesaurus app's, one in Rails, the other in React. It has one of the largest vocabularies available, as it's an amalgamation of Roget, WordNet, and another thesaurus. It was online at <http://thesaurus-lexdump.rhcloud.com>, but no longer.
- Scientific
Analysis
Laboratories,
Manchester
2011-2012
(Contract)**
- Development for laboratory administration in Ruby on Rails using Mysql and Oracle, with Passenger deployments.
 - Developed a quotation and invoicing sub-system to track work-in-progress for chemical and particulate analysis on brown-field building sites. This permits authorised users to enter quotes, sales orders & chargeable items, and it produces quotation and invoice documents that are sent to the client. Amendments for fine-grained access restriction (Can Can), and the allocation of differing role sets for users per company branch.
 - Wrote an application to schedule itineraries for the collection and delivery of consignments from clients' sites. It provides a web-based front-end for on-road drivers to use, as well as a fallback of delivering SMS texts to give notice of route changes.
 - Database conversions and imports.
 - Enhancements to a web application to measure the ash, moisture and density of chemical samples.
- Objective
Websites
2008-2010
(Freelancing)**
- Started a business as a sole-trader offering software development services. Prepared a business plan and received a regional aid grant.
 - Learnt Ruby on Rails, by developing a site to retrieve store and search RSS feeds classified by tags, a Rails 3 Engine which allows end users to answer multiple choice questions, a general purpose price-comparison application, an email distributor and web scrapers to find leads.
 - Developed a site to share sheet music in PHP.
- 1988 - 2008
(Various)**
- Contracts and permanent positions in finance (stock trading & options), health-care, education, CMS development, email handling, warehousing and retailing.
 - Coding, analysis, software distribution, release management and data-base administration.
 - BT (Ipswich), Misys (Birmingham), Isoft (Manchester), Tridion (Holland), Sportal (London), BSkyB (London), Commerzbank (Germany), Nat West (Bristol), Newton Investment (London), Datel-Ferranti (Preston), NHL (USA), Hoskyns (Southampton), EDS (Birmingham), AT&T (Redditch), NHS (nationwide), German Health Service, etc..