

Daniel Rosher | Senior Software developer

Location: Ampthill Beds

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Professional profile

"Highly motivated self starter and learner, able to solve complex software problems"

Specializing in developing complex search engines, including indexing with MongoDB, in particular using Solr/Lucene with Java and Perl and Python.

Also developed deep learning services using Python and Tensorflow 2.0 (colab) with text and images.

IT/Technical skills

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|------------------------------|------------------------------|------------------------------|
| • B.Eng(Comp Sys) 1st | • MongoDB/MySQL | • App Monitoring |
| • Solr/Lucene | • Index/Search APIs | • App Deployment |
| • Java/Perl/Python | • Tensorflow/Keras/AI | • Software Management |

Career summary

May 2010 - Present

**Careerjet Ltd
Senior Search Developer**

Outline

Develop and maintain the search engine for Careerjet Ltd, search source for 80 websites in 22 languages, including software to index raw data into the search engine and maintain/monitor associated systems.

Key responsibilities

- Sole Solr/Search Java developer for Careerjet Ltd 80 websites (e.g. www.careerjet.com)
- Developing also in Perl for indexing and exporting of data from Solr, monitoring of services with Xymon
- Development of vertical search engines for other products including CVs, Real estate, Vehicles and Training courses.
- Xymon scripts for system monitoring, Ansible for product deployment. Use professional language and show how your duties impact the business where possible.

Key achievement/projects

- **Sponsored Search.** Rewritten their Cost-Per-Click search implementation making it faster and more accurate using the solr RankQuery
- **Custom Analysis.** Multilingual analyzer/filters for latin, CJK and Thai languages
- **Spatial Search.** Faster than haversine, nvector spatial filter using custom tailor/maclaurin series approximation for acos.
- **Indexer.** Redesigned their indexing process, 23Million docs in one hour.
- **Availability.** Suggested and implemented HAProxy(with keepalived) for load balancing and availability
- **MongoDB Integration** Integrated MongoDB ChangeStreams for immediate doc updates and full import to Solr.
- **A.I./Machine Learning.** Learn and make use of TF (keras) models with TF Serving and docker to identify vehicle orientation, and Image location for Real estate.
- **Spellchecking.** Custom spellchecking for location and search keywords.

Jun 2009 - May 2010

**Pirum systems Ltd
Senior Technologist**

Outline

Senior Perl developer developing a new system for confidential financial data entering our systems, and customer support providing maintenance of existing software.

Key responsibilities

- Software Development to improve existing processes and systems
- Customer Support for mainly Investment Banks to support issues with their Stock Lending processes within the scope of the software Pirum provides for them, including setting up reconciliation's between banks.
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Key achievement/projects

- Gateway project. Replace their essentially 3GL implementation with a more OO approach as well as fixing process issues with the existing software.

Aug 2004 - Jun 2009

**Trinity Mirror Digital Recruitment
Senior Search Developer**

Outline

Give a high-level overview of the role to show how you fit into the organisation and what the overall goal of your role is. 1-3 lines should be enough.

Key responsibilities

- Research and development into possible areas of improvement for the company.
- Senior member of the software engineering team, writing code for many of the company's products for Trinity Mirror's 75 digital recruitment sites.
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Key achievement/projects

- **Solr Development.** Incorporating our Lucene enhancements into Solr, an open source Lucene search engine, mainly to incorporate faceted searching for our Websites. <http://www.solr.org>. I've also contributed to the Solr project
- **Lucene Search engine application with Google Suggest Locality search.** (Java, Javascript, Perl, XML, rsync, bash, MySQL) Sole designer and developer to replace home grown CV (over 1.5 Million searchable CVs) search engine with a Lucene Application search engine. Operates as a single master, multiple slaves with rsync replication. Extension of my own Lucene search implementation to allow for locality search i.e. search within a radius and implementing a 'Google suggest' style locality drop down to aid the user in selection of County, Town or Postcode.
- **CSS Recode project.** (CSS2, HTML4.01). Rolling project to convert all our old table based HTML site layouts, to one with presentation focused in CSS so that multiple sites work off one base, this provides better maintainability and design flexibility.
- **Online Purchasing with WorldPay.** (Perl, WorldPay). Sole Developer for online purchase solution of jobs for the company, integrated with WorldPay, brings in £10k/month of revenue on average.
- **Mass Data migration.** (Perl, Mod Perl, XML, HTTP, MySQL) Sole implementer for £7Million project to migrate Users, CVs, Job and Clients from <http://www.workthing.com> into our network of sites, used the HotPost system I developed
- **Mass Job Posting system, HotPost.** (Perl, Mod Perl, XML, HTTP, MySQL) Sole designer and developer for mass job posting system. 70% of jobs came via this system. Known internally as HotPost, the system can receive jobs via XML, SOAP or HTTP (Form posted), with hooks for more implementation as required.

Jul 2002 - Aug 2004

**Kings College London
Senior Web Team officer**

Outline

Second level support for the college website, as well as development projects e.g. College policies search engine a chat server for graduate and prospective students and stream server.

Key responsibilities

- Second line support for all college web related queries
- Part of a team developing projects for all Departments in the College

Key achievement/projects

- [Policy-Zone, Multifaceted search](#). (PHP,MySQL,Apache,Linux)Developing a multi-faceted poly- hierarchical generic search engine with LAMP technologies
- [Streaming server](#) (. Setting up streaming server (<http://www.kcl.tv/>) with RAID (mirrored), and piloted with internal DNA broadcast.

Sep 2001 - Mar 2002

**CWA New Media, Wellington New Zealand
Senior Analyst Programmer**

Outline

Contract developer working on the TKI Education portal for the Dept. of Education in New Zealand

Key achievement/projects

- [MetaData Development](#). (Perl MySQL,XML). Development of Metadata system for CWA New Media in bilingual environment
- [MetaData Search](#). (mod_perl,MySQL,Perl,XML) Implementation of more sophisticated search mechanism
- Project Work. Ad-hoc projects involving design and implementation of systems using Metadata repositories.

May 2000 - Jul 2001

**MediaSurface Ltd, London
Software Engineer**

Outline

Perl Developer working the MediaSurface CMS.

Key achievement/projects

- [Content Management System](#). (Perl) Design and Development of Content Management software for Mediasurface
- [Support](#). (Perl,Java) Third level Support for all queries relating to core product.
- [Project Work](#). (Perl,Java,LDAP) Providing solutions for medium enhancements to the core product including LDAP integration and WYSIWYG controls.

Dec 1998 - May 2000

**Telstra Bigpond Ltd, Sydney Australia
Software Engineer**

Outline

Perl Developer working with the national communications provider

Key achievement/projects

- **Platform Support.** (Perl, NT, Realmedia, Microsoftmedia). Support and Development of Infrastructure for Internet products, in particular, streaming technologies (RealMedia and Microsoft Media Technology/ NetShow). Development of Systems on Windows NT (Cluster farm) and Unix Solaris (Failover / Standby) Platforms.
- **Customer Support.** Site/Customer Support for all queries relating to streaming technologies. Available on-call for problem escalation.
- **Product Support.** (Perl) Product support for all queries concerning streaming technologies. Areas of involvement include requirement specifications, product documentation and product training.

Education and qualifications

- **B.Eng(Comp Sys)** **First class honours**
University of Technology, Sydney NSW Australia
1996
- **Higher School Certificate**
Model Farms High School NSW Australia
Maths 3U(90%),2U(98%), Chemistry(78%), Physics(72%)
1988
- **School Certificate**
Model Farms High School NSW Australia
Maths Advanced, Grade A. English Grade 1.
1986

References available on request
