

Sam Taylor

Generalist, problem solver.
Polyglot software engineer.
Thoroughly enjoyed studying CS.

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Brief

Seven years of programming in different technical environments and organisations has made me a hardened generalist, able to quickly acquire new skills and problem solve in unfamiliar environments.

Skills

- Foundation of programming skills comes from an academic background, including introductions to Java, Haskell and C.
- Early work used Java and C# to build desktop applications, image processors and a DirectShow based video key-framer.
- The majority of my work used Ruby and Go to build web applications and services
 - Including javascript web-apps built with Backbone, ReactJS and WebSockets
- My own projects use C/C++ and OpenGL ES 2.0

Experience

Projectionist

2015
<http://projectionist.array.bz>

Built a Debian + Wayland OpenGL C/C++ graphics stack with a tiny compile time.
Used FFmpeg for video textures.

Red Badger

2014
Senior Web Engineer

Worked with a team using Rails to develop a new libgit2-based CMS with audit-trail capabilities.

- Implemented a responsive UI using React.js
 - Contributed to React-Rails: <https://goo.gl/b4mb5E>
- Profiled the application using New Relic to identify and resolve performance bottlenecks
- Built a custom stats backend using Go to extend analytics capabilities
- Monitored test runs to isolate redundant tests
 - Discovered tests which duplicate path coverage
 - Discovered tests which produce regular false negatives
 - Reduction in test code base mass resulting in ~30% more feature throughput from reduced maintenance

The App Business

2013

Senior Web Engineer

I worked with a team developing a mobile sports news application, using Rails to serve the API.

- Designed and built a hypermedia diff API inspired by Redis AOF
- Introduced Varnish to reduce the volume of traffic reaching the origin
- Used memcached for document fragments to reduce response times for requests which did reach the origin
- Worked with test engineers and DevOps to achieve an issue-free launch on the first day of the FIFA Premier League

HouseTrip

2012

Web Engineer

I worked with a team developing a holiday accommodation booking application with Rails.

- Reduced CSS payload by 40% using Chrome Auditing tools
- Reduced response times by implementing database queries outside of ActiveRecord.
- Implemented a map of available accommodation using GoogleMaps
- Implemented feature-flipping resulting in a 6% bump in conversion

Education

University of Nottingham, Computer Science BSc Hons First Class.

My dissertation work on a novel improvement to an image segmentation algorithm and contributed to published work: <http://goo.gl/xHZJFs>

Topic	Mark (%)	Topic	Mark (%)
Operations Research and Optimization	94	Enterprise Level Computing	75
Knowledge Representation and Reasoning	92	Dissertation (on image processing)	75
Internet and Web Services	79	Database Systems	75
Graphical User Interfaces	82	Algorithms and Data Structures	86
Advanced Computer Communications	82	Mathematics for Computer Science	83
Bioinformatics	85	Programming	76
Computability	80	Functional Programming	81