

## Overview

I'm looking to immerse myself in a new and stimulating environment. I code well in Java / Ruby / Javascript and am excited about learning Go. I've worked alone and in both small and large companies and get on with people.

I'm primarily a backend/systems developer but can dip into sysadmin and front-end development. I've worked on large systems performing crucial roles for live TV broadcast and busy websites.

I'm a fast and active learner and always looking to improve the state of software. My background is in music and audio but have been solely working in software development for 8 years. I'm:

- calm, logical, and patient - it's nearly almost impossible to irritate or frustrate me :)
- persistent with high endurance levels - I can't stop until I fix it
- down to earth and sociable - I'm easy to talk to and like to join in

## Work / EveryCity

Everycity does high-end managed web hosting for Yospace, Thompson Reuters, Audioboo, Soundcloud [formerly], and more

[everycity.co.uk](http://everycity.co.uk)

- freelance 2007
- employee 2008/9
- freelance 2009+

## Work / Pharos [Evertz\*]

Pharos provide broadcast automation systems for major broadcasters such as BBC, MTV, Channel4 (UK), CNBC, Technicolor, Disney

[evertz.com/workflow/mediator](http://evertz.com/workflow/mediator)

- employee 2005/6
- freelance 2008+

Java, JavaScript, Flex, Bash, Delphi (Object Pascal), Oracle 10g, PL/SQL, Spring, JUnit

Subversion, Git, Eclipse, Cruisecontrol

\* Evertz bought Pharos in 2011

## Infrastructure management platform / Service Provisioning API Architecture & Development

- Ruby [on and off Rails], rpsec, MCollective, ActiveMQ, MySQL, SmartOS, ZFS, Backbone.js, nginx, passenger
- manages 500 VMs / 700 IPs / 200 networks across 30 servers (>700 cores)
- intelligently configures IP addresses / networks / gateways
- uses distributed discovery and registration - keeps up to date with any underlying changes
- features declarative API definitions with autogenerated docs / REST API / web UI / CLI

## Other projects

- DNS Control panel for staff and clients - manages domains and DNS, talks to Nominet / Enom / PowerDNS
- VM backup management - runs in parallel, reports status, recovers from inconsistencies, 10s TB's of data
- Ubersmith alternative web UI - billing data presentation/export
- lots of getting things to compile on Solaris

## Modular JavaScript framework Conception, Architecture & Development

I identified issues with Javascript use (use of global scope, non-reusable code, fragile code, hard to debug, use of absolute paths) and developed a CommonJS based framework to address them, I delivered:

- easy to use documented modules with fluid API style for running commands, HTTP, logging, webservices etc
- an autogenerated webservices API client with auto-[re]connect/disconnect for simplicity
- automated tests using Jasmine runnable from IDE or Cruisecontrol
- staff training workshops, documentation, learning aids, and a style guide

## Tape Ingest robustness Investigation & Development

Tape ingest was a cause of a number of complex issues and I completed a large project to resolve these. A particularly demanding client wanted a wide range of edge cases to be handled.

- implemented queue-based messaging inside Java application to resolve threading issues
- added handling for extra tricky timecode patterns from 'messy' raw tapes straight from camera
- wrote a logging application to capture and filter data sent on message bus
- created a declarative log processing system - locates, trims, and filters log files using SQL / js / grep / cut

## Other projects

- API integrations with a range of devices - media archive, subtitling tool, DRM processor
- software to control operations for a Sony Flexicart robotic tape library
- investigating, diagnosing, & resolving numerous issues across the whole platform

## Work / Synergy Regs

Synergy write content and quizzes to be distributed to government workers around the country

- freelance 2009-2011

## Other software projects

## Life outside software

## Education / Tonmeister

### Music and Sound Recording BMus (Hons) 2:1

University of Surrey, UK

## Education / Previous

## Online information and training tool Architecture & Back-end Development

- used by around 1600 people across 30+ organisations
- Ruby on Rails, MySQL, Sphinx indexer (w/ Thinking Sphinx)
- imported 000s of documents from legacy system with HTML scraping
- detailed facet based content browsing
- mass action system - can select ALL paginated results and perform actions efficiently across set
- flexible multi-level editable permission system - some organisations have their own admins

## Ticketing site for In The Woods music festival Everything

- small festival (~1000) that promotes upcoming independent music
- Ruby, Sinatra, CouchDB, Elasticsearch, integrates with Paypal, YMLP mailing list, and Amazon SES
- Invite-only system uses unique URLs for passwordless/sessionless simplicity

## Personal projects & exploration

I spend quite a lot of time on personal side projects and exploring new technologies. In doing so I've played with (to varying degrees): Hazelcast, Elasticsearch, LevelDB, Netty, Cassandra, HBase, Hypertable, CouchDB, Riak, MongoDB, logstash, Protocol Buffers, FoundationDB, RethinkDB, and more.

Some of the things that have come out of this process include:

- versioned datastore using a git-like data model with pluggable storage, auto-indexed with elasticsearch
- "process-flow" framework with declarative JSON configuration - construct apps on the fly by POSTing JSON
- non-blocking distributed locking Java executor using Hazelcast - works great with Google Guava Futures

## Cycling and walking

I love long distance self-powered trips on foot or bike, ideally with wild camping and river swimming.

- long distance cycling - 1200 miles USA east coast, 2200 miles London -> Budapest
- long duration cycling - 9 months round the UK with solar panel, 3G dongle, Macbook Air
- walking - 280 miles Reading -> Cornwall

## Music

Music has always been a core part of my life and I've been creating music since I was 11, other things include:

- piano playing - mostly quite minimal and sparse
- soundscape recordings with portable recorder - with Sony PCM-D50 (and binaural mics)
- partially completed masters degree in experimental electronic music
- hosting small experimental and folk music events in London
- compositions played on Resonance FM and BBC Radio 4

A highly regarded course offering a rigorous training in professional audio as well as music theory and practice.

- in-depth use of large mixing consoles and outboard gear
- extensive use of computer-based recording systems - Pro Tools, Pyramix, Logic, Cubase, SADiE
- learning to use and align 24 track 2" tape machines
- final year project - I implemented (and incrementally improved) algorithms for detecting auditory offsets
- composing and performing music for an audience

A-levels in Maths [A], Physics [B], Music Technology [A], AS-level in Psychology [B] at Hayesfield, Bath, UK

References available on request