

John Knott

Senior Engineer / Technical Lead



Recent Employment

2010 - 20

Head of Engineering 2018-2020

Principal Engineer 2010-2018

Meetupcall

Leading a development team, being the principal engineer and building the technical side of a leading UK conference call provider from the ground up.

Even when 'Head of Engineering' this was still a very hands-on role.

Originally a **Ruby on Rails** monolith, over recent years I successfully migrated key parts of the infrastructure to **Elixir** and **Vue.js**.

Duties have included:

- **Back-end development work**

- Using Ruby and Rails to build web applications, RESTful APIs, scripts, daemons, libraries and jobs.
- Using Elixir with Absinthe to build a fast, scalable GraphQL APIs

- **Front-end development work**

- Using Vue.js and GraphQL to create a dashboard that allows a customer to view a visual representation of a conference call in real time. The customer could control the call, see who is speaking and kick or mute attendees.

- **Following industry best practices**

- Following a lightweight Agile process - stand-ups and sprints, pair programming where appropriate.
- Ensuring our code is well tested, especially business logic and critical code paths and utilising TDD where appropriate.
- Using CI / CD tools to automate our deployment process.
- Embracing 'infrastructure as code' and provisioning our server infrastructure using dev-ops tools including Terraform, Chef and Ansible.

- **Addressing scaling concerns - keeping things fast**

- Benchmarking and using tools like NewRelic to identify issues.
- Distribution of tasks using Resque / Sidekiq.
- Heavy use of caching - especially Redis.
- Judicious extension of Ruby / Asterisk with C / C++.

- **Addressing reliability concerns - keeping things running**

- Implementing tools like Monit, Rollbar and Slack to keep us informed when things go wrong.

- **Leadership**

- Recruiting / dismissing employees.
- Managing departmental budget.
- Performing employee reviews.
- Mentoring junior developers.
- Engaging in weekly one-to-ones with team members.

Information

Name	John Knott
Nationality	British
Work	20 Years Experience
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About Me

I've been a professional software engineer since I was 17 years old. I started my career as C / C++ developer using Visual Studio 1.5, wrangling with now archaic concepts such as near / far pointers, memory models and inline assembly.

Recent programming work has been primarily Rails, Elixir, Vue.js and Flutter.

I have a keen interest in learning new languages and paradigms - I think it is crucial not to let skills stagnate.

When not working or learning new things I enjoy running, travelling and playing table-tennis.

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Previous Employment

2009 -10	Software Developer Smiffys UK Building APIs and Data Access Layers. Integrating legacy and contemporary systems. Automating business processes. Technologies: C#, .NET, SQL Server, Silverlight, Entity Framework, SOAP / REST APIs
2007 -09	Software Developer Miller Bros Retail Ltd Enhancing and maintaining a complex C++ web application that served pages for a high traffic retail website. Technologies: C, C++, STL, GDB, Valgrind, Oracle, Postgres, HPUX, SOAP, Ruby / Rails
2006 -07	Web Developer Data, Media and Research Ltd Developing software, writing scripts, building websites and fixing bugs for a direct marketing and competitions company. Technologies: HPUX, Oracle, Debian, Ruby / Rails, Perl, HTML, CSS, Javascript, jQuery, Apache, Vim
2004 -06	Founder Cubic Studios Ltd Running my own business designing, developing and hosting websites for clients. Technologies: Linux, Ruby, HTML, CSS, Javascript, Bash
1998 -04	Software Developer Prozone While at Prozone, I was part of a small team developing football and rugby match analysis solutions used by top club teams for Windows platforms. Clients included Manchester United, Arsenal, Liverpool, Real Madrid and Ajax. This role involved working in a high pressure real-time environment - software I created was used to capture data for high profile clients such as the BBC and ITV for their The Premiership program. I worked extensively on the companies flagship product - ProZone - a sports analysis tool which helps study every aspect of a game . I also created an application that captured synchronised video from multiple cameras at football stadiums. Technologies: Visual C/C++, MFC, C#, .NET, Image processing, Flash, Sockets, SQL, COM, DirectX, Reverse engineering

Summary of Skills

Recent Technical Skills

Ruby / Rails	●●●●●●●●
Elixir	●●●●●●●●
VueJS	●●●●●●●●
Flutter	●●●●●●●●
Linux	●●●●●●●●

Paradigms

Procedural	●●●●●●●●
Object Oriented	●●●●●●●●
Functional	●●●●●●●●

Education

Hatfield High School - 1992 - 1995

GCSE: Mathematics A, Science Single Award B, Science Double Award B, English Language B, English Literature B, Geography B

Doncaster College - 1996 - 1997

NVQ Level I, II, and III in Computing

Examples of recently completed

online courses and books I've read

- * Complete Flutter Dev. Bootcamp with Dart
- * Machine Learning - Andrew Ng
- * Complete Elixir and Phoenix Bootcamp
- * Designing Data-Intensive Applications
- * The Rust Programming Language

Online

Github*	johnknott
Twitter	johndknott

* The majority of my work is in private repositories.