# **Josh Comley**

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I am a passionate, full-stack (C#, Angular, SQL Server, ASP.NET, mobile via NativeScript/Xamarin) technical architect based in Wandsworth, London, UK.

Experienced in agile, mentoring, training other developers, team leading, managing stake-holders and working alone off my own initiative.

Contribute regularly to the open source community.

Excellent communication skills, both written and verbal.

Really love coding.

✓ .NET (C#) 15 years

✓ .NET Core (C#) 4 years (since beta) Angular+ 3 years (since beta)

AngularJS 3 years NativeScript 3 years Xamarin 2 years ✓ ASP.NET MVC 6 years Azure 6 years ✓ SQL Server 15 years JavaScript 14 years TypeScript 4 years

in uk.linkedin.com/in/joshcomley

twitter.com/joshcomley

stackoverflow.com/users/64519/joshcomley

### **Work Experience**

#### i-site

Remote Working

May 2017 - December 2019 (31 months)

Developer and architect

I-Site is a cross platform (web, mobile - iOS and Android) application for recording and tracking the safety of scaffolds on construction sites.

The web app was built using Angular, the API using .NET Core, Entity Framework Core and OData and the mobile app using NativeScript and Angular (sharing most of the code with the web app).

It's key tenets include:

- Fully flexible reporting via OData and a unique report generation system
- Entire database scaffolded out via user-friendly web-based Angular management app, yet fully customisable as required
- Tagging of photos taken on-site, highlighting problems
- Full offline support on the phone apps, synchronising complex data structures, ensuring a "work-anywhere" app

#### Tech stack

C# .NET .NET Core SQL Server Angular Mocha TypeScript JavaScript SCSS Azure

MVC5 Entity Framework Core OData Material Design NativeScript

**Business skills** 

Requirements Gathering Business Analysis Client Facing

#### Reference

Can be provided upon request

### **Hazception Limited**

Remote Working

- O December 2015 December 2016 (12 months)
- Developer and architect

For the construction industry: built an **award-winning** online hazard awareness video testing suite (see <a href="https://www.hazception.com">www.hazception.com</a> for information).

Managers can upload their own videos, highlight and tag hazards throughout the video and then create exams for potential on-site workers to assess their ability to spot hazards within their own work-site.

Also built the brochure site linked above.

#### **Build:**

- An .NET Core and SQL Server web application with an AngularJS and HTML5 front-end web application
- Web API, .NET Core based backend for above web site using Entity Framework Core, Code First and SQL Server

#### Tech stack

TDD C# .NET Core SQL Server Angular Mocha JavaScript SCSS Azure MVC5
Entity Framework Core OData Bootstrap

### e Business skills

Requirements Gathering Business Analysis Client Facing

#### Reference

Simon Walker +44 (0) 7983 497008

### **TypeSharp**

Remote Working

( Ongoing

Founder, developer and architect

### **TypeSharp**

TypeSharp is a C# to TypeScript converter. Although it has an API, for demonstration purposes it has been wrapped up into an Angular application. You can import and export workspaces, all cached in the browser.

See <a href="https://app.typesharp.co">app.typesharp.co</a> for demo (very early alpha)

Tech stack

TDD C# .NET .NET Core Blazor Angular Mocha TypeScript JavaScript SCSS Azure Material Design

**Business skills** 

**Self Motivation** 

**IQL** 

Remote Working





Founder, developer and architect

### IQL (open-sourced)

#### http://iql.rocks

IQL is an ORM built in C#, converted to TypeScript (and ultimately JavaScript) via TypeSharp. This means the same code can run in .NET, Node, the browser and even phones via tools like NativeScript, React Native, Xamarin, Cordova etc.

It can map to any data endpoint (custom providers can be written) and enables Entity Framework style querying from TypeScript/JavaScript.

#### **Getting data**

```
let todos =
  await db.Todos
  .Where(todo => todo.Deadline < new Date() && todo.Name.includes("front end"))
  .OrderBy(todo => todo.EstimatedDays)
  .ToIqlAsync();
```

#### **Modifying data**

```
let todo = await db.Todos.GetWithKeyAsync(1234);
todo.Name = "A new name";
let result = await db.SaveChangesAsync();
if(result.Success) {
   // ...
}
```

IQL supports offline data synchronisation and is provided out-of-the-box with an OData provider.

IQL was built heavily with TDD and has around 600 unit tests. The tests also convert to TypeScript and run in Mocha.

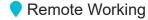
### Tech stack

TDD C# .NET .NET Core TypeScript



Self Motivation

### **Self-employed (Brandless Limited)**



( ) Ongoing

n D

Developer and architect

Since 2017 I have been building up a portfolio of products and tools.

#### **IQL Forms**

Using IQL as an front-and-back-end ORM, and OData as the pipeline, IQL Forms is a business application generator.

It is able to use metadata supplied from IQL about your data structure and configuration and generate web and phone applications dynamically. Information about permissions and validation are processed both in the front end via JavaScript/TypeScript and the back end via .NET.

The web applications are generated using Angular, and the mobile applications for iOS and Android using NativeScript combined with Angular and supports:

- ✓ 100% dynamic reporting on anything with export to PDF, Word and Excel
- ✓ Integration with DocNet for customised report templates
- File management
- Users management
- OAuth authentication
- ✓ Full CRUD
- Permissions
- Validation
- Material Design
- Login via text message or password
- Web, iOS and Android
- Easy developer customisation
- ✓ Themes

Demo available upon request.

### **DocNet** (soon to be open-sourced)

DocNet is a Word document templating tool built in C# and converted to TypeScript via TypeSharp.

It enables Angular-esque templates to be converted into Word documents and works in .NET, the browser, Node etc.

DocNet allows JavaScript queries to be embedded within a word document for templating, which are compiled and executed by the dynamic JavaScript engine in IQL

The following code demonstrates usage which can be written into a Word document via Microsoft Word.

It will iterate through a list of blog posts printing out the author, their photo. Then for fans of the blog post (it's a demo!) it will show their location on a map which becomes embedded within the word document with a red pin if their location has a certain status otherwise a green pin. Convoluted, but demos the abilities of the tool!

```
{{foreach:posts post}}
Author: {{post.author}} {{image: source="post.author.photo" maxWidth="'lin'" maxHeight="'li
{{post.text}}
{{if:((post.text != null && fan.longitude != null) ||
    fan.locations.filter(_ => _.latitude != null && _.longitude != null).length > 0)}}
{{map: centreLatitude="fan.latitude" centreLongitude="fan.longitude"}}
{{foreach:fan.locations location}}
{{map-pin: latitude="location.latitude" longitude="location.longitude"
    autoLabel="true" color="location.status > 2 ? 'red' : 'green'"}}
{{:map-pin}}
{{:foreach}}
{{:map}}
{{:if}}
```

### **TsBeautify (open-source)**

TsBeautify (github.com/joshcomley/tsbeautify) is an open-source code beautifier written in C# and converted to TypeScript via TypeSharp. This also runs in .NET, Node, web browsers and on phones.

# As part of .NET Core development, porting and creating world-first .NET Core libraries.

- Implementation of custom and comprehensive SQL Server based security later in Microsoft's Entity Framework Core
- Bug fixes submitted for Microsoft's Entity Framework Core
- .NET Core port of Microsoft's .NET OData implementation
- .NET Core port of SendGrid mailing API
- .NET Core port of Microsoft's System.Net.Mail (SMTP implementation)
- .NET Core port of Google's HTML Compressor

Tech stack

TDD C# .NET .NET Core TypeScript JavaScript Angular Azure Code First MVC5 SCSS

Entity Framework Core SQL Server

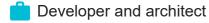


**Self Motivation** 

#### Sciensus Ltd.

Brighton, UK





Developer and lead developer on software primarily used in hospitals to aid disease analysis.

My work at Sciensus ranged from rapid creation of a fully customised call centre web application to ensure swift and accurate recall of faulty medical equipment, to a web based disease tracking system for Hepatitis.

Good UX, high security and data anonymity were all essential when building these applications as they were to be used in high pressure, security critical environments.

I introduced the team to a number of principles including DRY, agile and a collection of newer (at the time) technologies such as Bootstrap.

My role also involved mentoring other developers there

#### Tech stack

TDD C# .NET SQL Server JavaScript Agile ASP.NET MVC Bootstrap Client Facing XHTML SCSS jQuery

### **Business skills**

Mentoring Team Training Client Facing

#### Reference

Kim Whaling +44 (0) 333 103 9780

Sciensus, First floor office, Chelsea House, 8-14 The Broadway, Haywards Heath, RH16 3AH

#### Freedman International Ltd. / Kaboodle

**Q** London, UK

- (Nar 2010 April 2013 (became Kaboodle as of March 2011) (37 months)
- Developer and architect

Developer and lead developer on software primarily used in hospitals to aid disease analysis.

N.B: Freedman formed a start-up called Kaboodle for their new project. As such although I was at the same office I was technically in a different role and company as of March 2011

Lead developer and product architect a major in house product using C# 3.5/C# 4.0, WCF and MVC

Freedman is involved with helping multinational companies achieve their global marketing goals. As such, Freedman has undertook a challenge to build a web application to facilitate this, encouraging communication and visualising every aspect of the global marketing process. They envisage a product underpinning the company's finances in the years to come.

My role was to work as technical lead for the team of 5 developers and architect on the project from start to finish. The front end to the application was built in MVC 4. This included managing and training team members in Ukraine.

The only decision beyond my control was the employment of SharePoint 2010 as a backend for the data, however all SharePoint access was abstracted away via an OData driven RESTful WCF service authenticated using OAuth – in other words we created a full, public (secured) REST API for the application. SharePoint is completely dynamic; the customer can change their experience very easily, adding columns to existing "tables", even new "tables" of data and so on. The API had to reflect this live, delivering different data and metadata whilst the web application had to be robust enough to survive such changes in its underlying schema without requiring a reboot.

This particular project was one of the most challenging yet of my career due to an incredible number of hidden complexities and limitations within the underlying key technologies when dealing with completely dynamic data feeds. It has also given me excellent experience leading and managing a team of developers.

#### Tech stack

C# .NET Mentoring Agile BDD TDD SOLID REST Team Training OAuth OpenId

MVC 4/3 C# 4.0 C# 3.5 ASP.NET Client Facing SharePoint 2010 Continuous Integration

SQL Server XHTML CSS JavaScript jQuery WinForms WebForms Technical Writing LINQ

### **Business skills**

Mentoring Agile Team Training Client Facing Continuous Integration Technical Writing

#### Reference

Dave Ashenhurst +447966582174

India House, 45 Curlew Street, London SE1 2ND, United Kingdom

#### Paxton Access Ltd.



\( \) June 2007 – Mar 2010 (33 months)

Developer and architect

Built a variety of internal management web applications whilst maintaining existing website.

My work here has involved the lead development of over 50 web applications using ASP.NET and SQL Server, and over the last year ASP.NET MVC with jQuery.

Another key project includes the development of on an online system for controlling and reporting on remote security systems – opening doors, reporting on who is in a building etc.

Many examples of work can be given from time at this company; from web based complicated mathematical business projections and visualisations, complete task management tools and a custom blog to detailed sales history applications and an internal knowledge base. Work here is pushed out at a high standard and includes the design of all applications to very tight deadlines, through a mixture of agile and classic development structures. Once published, applications are often immediately used by up to 2500 people.

#### Tech stack

C# .NET C# 3.5 ASP.NET SQL Server HTML XHTML CSS JavaScript jQuery MVC ASP ASP.NET WinForms WebForms Technical Writing Unit Testing Silverlight LINQ



Mentoring | Waterfall | Team Training | Business Analysis | Requirements Gathering

#### Reference

Adam Stroud +441273 811011

Paxton House, Home Farm Road, Brighton, BN1 9HU

### **Fit Systems Limited**

Brighton, UK

( ) April 2008 – December 2008 (8 months)

Developer and architect

Built a holiday website with custom build CMS.

Development and client facing role – helped design and entirely developed the holiday websites found at http://www.purezanzibar.com and http://www.puremozambique.com. Please note these websites have since been modified and do not represent my original work! These websites both run from a common code-base and more "themed" websites can be created from the comprehensive CMS at a later date.

#### Tech stack

C# .NET C# 3.5 SQL Server HTML XHTML CSS JavaScript Client Facing WebForms LINQ

Business skills

Client Facing Waterfall Business Analysis Requirements Gathering

#### Reference

Ragnar Barnsby 0845 603 79 26

FITSystems Ltd, 16 Seville Street, Brighton, East Sussex, BN2 3AR

#### **Riot Creative Limited**

Brighton, UK

(S) April 2008 – December 2008 (8 months)

Developer and architect

Developed a pub/very-mini-social website and associated CMS (Content Management System)

Although this is no longer live due to the client not paying Riot Creative Limited, it can still be found at the test site: http://themontague.stage.riotcreative.co.uk/

This project had a two week deadline to build a pub website with a slight social aspect along with an associated CMS to manage the various pages on the site. CMS can be demonstrated.

I also both helped design and entirely built the company website (http://www.riotcreative.co.uk). The site is XHTML 1.1 compliant and works 100% in all the major browsers (IE6, IE7, IE8, Chrome, Firefox 2, Firefox 3, Flock, Opera and Safari).

#### Tech stack

C# .NET C# 3.5 SQL Server HTML XHTML CSS JavaScript Client Facing WebForms LINQ



Client Facing Waterfall Business Analysis Requirements Gathering

#### Reference

Victoria Boarer +447789540894

Riot Creative Limited, 40 Clarendon Villas, Hove. BN3 3RA

#### **Cubeworks Limited**

Brighton, UK

(Narch 2006 - June 2007 (14 months)

Developer and architect

Build database driven web applications in ASP.NET using C# and SQL Server

Working in an agile manner with project managers, later on as a team leader. The core of my work here has been ASP.NET web development with SQL Server, although included development of a few win forms C#.NET applications. Work was also heavily client facing, being involved in all aspects from pitching work to clients to negotiating through projects.

#### Tech stack

C# .NET SQL Server C# 3.5 HTML XHTML CSS JavaScript Client Facing WebForms

#### **Business skills**

Client Facing Waterfall Business Analysis Requirements Gathering

#### Reference

Alex Cowell +441273 733373

Cubeworks Ltd., 18 Marine Parade, Brighton. BN2 1TL

#### **Tracalert Limited**

Brighton, UK

( July 2006 – October 2006 (4 months)

Developer and architect

Build a customer management system in ASP.NET and SQL Server for call centre

Designing and building a database driven customer management system with various tiers of user authorization and user impersonation for administrators. Highlights include addition of an ASP.NET text-to-voice service.

Tech stack

C# .NET SQL Server HTML XHTML CSS JavaScript ASP.NET WebForms

**Business skills** 

Client Facing Waterfall Business Analysis Requirements Gathering

Reference

John Thurgood +447767 678678

Tracalert Ltd., 15 London Street, Chertsey, Surrey. KT16 8AP

### **Dealogic**

London, UK

U June 2005 - March 2006 (9 months)



Junior Developer

Design and build tools to help maintain finance customers' accounts

Work here involved building complex multi-threaded GUI tools to help maintain national and international banks' accounts with Dealogic in a mix of WinForms and ASP.NET applications, using .NET remoting.

### Tech stack

C# .NET SQL Server HTML XHTML CSS JavaScript C++ ASP.NET WinForms WebForms

e Business skills

Waterfall

#### Reference

Simon Hutton +4420 7379 5650

Dealogic Ltd., 231-232 Strand, London. WC2R 1DA

### **East Sussex County Council**

Lewes. UK

U June 2003 - August 2003 (3 months)



Junior Developer

Provide technical support and assistance for all council staff

Provided first (and some second) line technical support in a team of four for the entire employee population of East Sussex County Council for any IT (hardware and software) related problems. Trained on call logging system.



Tech stack



峊 Business skills



#### Reference

Linda Caola +441273 481234

East Sussex County Council, Lewes

### **Education**

### **Computer Science and Artificial Intelligence**

Sussex University 2002 - 2005

### **Focus**

Java, C++, Haskell, Matlab

### Dissertation

An embedded C application to control media computers via Bluetooth on Symbian based smart phones.

## Get in touch

Drop me a line at joshcomley@googlemail.com or call me at +447979 857504

- in uk.linkedin.com/in/joshcomley

- twitter.com/joshcomley
  github.com/joshcomley
  stackoverflow.com/users/64519/joshcomley