Lee Smith – Senior Software Engineer

About

Full-stack software engineer with 21 years experience in professional software development and maintenance with a keen focus on clean readable code & standards.

Available to start immediately, references available on request.

Contact Info

Name:	Lee Smith
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Skills

Languages		Environments		Other	
Javascript/ECMAScript	**Strong**	VSCode	**Strong**	git	**Strong**
SQL (MS)	**Strong**	Visual Studio	**Strong**	NodeJS	**Strong**
HTML	**Strong**	Vim	Moderate	REST	**Strong**
CSS	**Strong**	Windows	Good	Docker	**Strong**
C#	Good	Linux	Good	Custom Compiler/Transpiler	**Strong**
XML/XSLT	Good	AWS Lambda (NodeJS)	**Strong**	OpenAPI (aka Swagger)	Good
Bash	Moderate	AWS S3	**Strong**	SVG	Good
		AWS DynamoDB	**Strong**		
		AWS Other	Good		

Employment Summary

Senior Software Engineer	Moodys (Formerly VigeoEiris, Eiris)	Oct 2008 – Dec 2023
Software Solutions Developer	Acxiom (Formerly Altwood Systems)	2002 – Oct 2008

Projects at Moodys:

Datalab

My main focus during my time at Moody's has been Datalab – a client facing, web-based application used to access Moodys' ESG data and generate standard and customised outputs, including tabular data and rich reports.

It consists of many sub-projects utilising a variety of technologies which, as lead or sole developer, I was responsible for developing and maintaining the product, as well as providing second-level support. Other team members also contributed to some of these, under my guidance.

Originally developed as a monolith, Datalab has numerous microservices, both internal-only and public-facing. Some of them are node based docker services, linked together through rest APIs, others are AWS based including lambdas, S3, SQS, DynamoDB + more.

One of the main features, Datahub, is a tabular data viewer with powerful sorting and filtering features as well as nested columns and feature-rich menus. As the amount of data grew I removed a lot of the original jQuery code to replace with more modern native javascript for a significant boost in performance, significantly reducing load times as well as the time to update during manipulation.

A microservice is used to output data to xlsx with fast and resource-efficient custom code with features for merged-cells and custom formatting.

Strategies can be created using a wizard-style interface (which uses a custom module loader predating ES6 modules by some years to avoid loading code until required)

These strategies are saved in XML format and compiled into SQL statements using XSLT and SQLCLR. This requires a strong focus on security to mitigate the potential for any SQL injection risks.

Strategy results are updated regularly by the C#-based Job Service that runs constantly

Elegant looking html & pdf reports, including rich graphics rendered in svg or directly in html, are generated by the Profile Engine that takes data from SQL in XML format and converts it with XSLT. This is wrapped up into a scalable docker-based

stateless microservice.

An AWS-based service, Data Notifications, uses Datalab's APIs to extract old & new data, looking for differences and notifying the client if found.

I made a custom cmdline build-system primarily to avoid frustrations with Visual Studio's msbuild system. Based on gnu make, but without the limitations revolving around filenames with spaces, it still utilises msbuild to build individual projects but is smarter about rebuilding them, dealing with dependencies and nuget packages more cleanly. Additionally, it handles less -> css conversion. Ultimately, the custom build system is faster and more reliable than using msbuild alone.

Small projects

Aside from those mentioned above there have been many smaller projects, often part of larger developments not lead by me, and mostly utilising AWS.

Other responsibilities

During my time at Moodys I had the following additional responsibilities:

Mentoring

As lead developer I have often had to provide technical guidance to other team members in the contributions to the team, including considerations such as coding standards & readability, efficiency/optimization (and whether or not to consider this) as well as guidance on how a task might be achieved or pointers on what to research.

This role can be very rewarding when seeing team members progress and improve their skills.

Recruiting

I have been involved in the recruitment process of team members, offering my opinion on their suitability for the role and setting technical questions.

Union Rep

I spent several years as Union Rep, supporting staff members across all roles at the site and negotiating, on their behalf, with management as required.

I found this to be an enlightening position, which allowed me to see things from other perspectives not normally afforded to most staff members.

Technical Hobbies

Home-made "8bit" computer

I am currently working to create a computer made entirely from discreet components.
Apart from being fun, this project will result in an enhanced knowledge of the internal workings of a computer, thus helping me to write better software, even in higher level languages.

Online Presence

Speed running & Youtube

As well as watching videos about speed running and some of the crazy tricks that get used, I am also currently trying to get a good time in the original "Duke Nukem" – a task that is proving to be quite the challenge.
I sometimes livestream my attempts and also have many videos of me playing other games on youtube.

DJ

DJing has been a passion for many years. I used to host a weekly internet radio show "DJL's Deep Decks", which was popular for a number of years.

Voluntary work

I develop and maintain the website for the "Movers and Shakers", a local charity supporting sufferers of Neurological Diseases and their families. Additionally, I manage the charity's IT systems.

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