

Matthew Sutton

Backend Software Engineer

<https://matthew-sutton.com> 

hello@matthew-sutton.com 

<https://github.com/MS26> 

Experience

Lead Software Engineer

Codeweavers (November, 2022 - Present)

Progressed into the lead position within the Digital Store platform, managing and planning the projects that the team backing the platform would be working on. Speaking closely to clients, ensuring all requirements were fulfilled, in a way that enhanced the platform, for not only them but all clients using it.

Personal Highlight: Migrating our Frontend architecture to have all assets hosted from AWS, reducing average latency by over 1 second. Then working on the migration of our Backend to AWS, currently focusing on the update of the framework from .Net Framework 4.7 to .Net 8.

Management: Taking on the responsibility of managing multiple developers within the Digital Store platform. Conducting monthly individual catchup's and ensuring the team is meeting the expected requirements. Whilst also taking an active role in recruitment.

Communication: Working closely with other companies within Cox Automotive, delivering combined products to our customers. Whilst also reaching out to providers ensuring that our integrations are delivering the best service for our products.

Tenders: Aiding the operations team to create and submit tenders for multiple used car locators internationally. Planning required work to ensure our products can fulfill all requirements within the time constraints.

Internationalisation: Releasing our Digital Store into multiple new markets; UK, Norway, Austria and many more. All using the same platform with a personalised configuration, making the site their own.

Senior Software Engineer

Codeweavers (June, 2021 - October, 2022)

Naturally moved into a senior development role in the Digital Store platform becoming involved in ensuring it was ready for the company's expansion into Europe. Expanding my abilities into Frontend technologies, aiding with projects that span across both areas.

Personal Highlight: Extending our Facet Search implementation to support counts against each available option. This required a re-architecture of the algorithm used and was done without impacting its performance.

Tenders: Ensuring the platform delivered the products required by a client, quickly developing sustainable features for demonstrations to prove the platform could fulfil their requirements.

Internationalisation: Developing our Digital Store product to a point it was ready for an international release. Releasing it in France first, being closely followed by another 27 markets.

Software Engineer

Codeweavers (June, 2019 - May, 2021)

Began to work on both the production and continuous integration (CI) platform as well as continuing work on client based projects.

Personal Highlight: Migrated the way one of our core applications stores and processes data, reducing its memory foot print from 13.5GB to 6GB, whilst completely removing its usage of the Large Object Heap (LOH).

Continuous Integration: Increased our build throughput, developing the functionality of concurrent builds, for both related and un-related projects.

Continuous Deployment: Implemented the functionality of concurrent deploys for unrelated projects. Increasing our deploys per day by 100%.

Sustainability: Extended our implementation of Canary Testing to include the ability to replay requests for our core APIs during deploys and ensure the responses match within a defined tolerance.

Data Structures: Modified an existing word index, used to enable free text searching, to use a Trie data structure. This reduced indexing memory consumption by over 2GB at peak working set. Then further modified the structure into a Compressed Trie data structure which reduced the node count from 477,085 to 144,229.

Placement Software Engineer

Codeweavers (June, 2017 - May, 2019)

Spent the 3rd year of my degree at The University of Derby as a placement student at Codeweavers.

Personal Highlight: Being offered a full-time role in the first half of my placement, with the final year of my degree funded.

Professional Development: Delivered a JLR project to help the upsell of Stock vehicles during a Build to Order journey. This was fundamental to me growing my confidence and understanding the complete journey of a project.

Skills

C# .NET TypeScript

Angular Cassandra

Postgres AWS GCP

Terraform Docker

Clients

Volvo Novuna Hendy Auto

Trader Mercedes-Benz BMW

Mini Stellantis Toyota

Lexus JLR

Projects

Serve My Site

Building a self-serve hosting platform for Web Applications. Focusing on providing immediate deployments and next level performance when serving the hosted applications. Currently hosting my Portfolio and other personal projects.

Portfolio

Designing, building and hosting my portfolio site. Using the skills I've developed during my professional career to do so.

Word Processing

Attempting to reduce memory allocations during word processing.

Word Indexing

Attempting to reduce memory allocations and un-lock new natural language search features during word indexing.

Education

Computer Science

September, 2015 - May, 2019

Studying a Bachelor of Science Honours Degree at University of Derby.

Computing and Systems Development

September, 2013 - May, 2015

Studying a Higher National Diploma at Halesowen College.