

MATT HOPE

T e c h L e a d

CONTACT

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PROFILE

A professional Tech Lead with over a decade of commercial software development experience, focusing on innovation and leveraging current technologies to build large scale enterprise applications. In-depth experience in requirements gathering, sprint planning, development, design, maintenance, and testing of software. Broad expertise in various platforms, frameworks, and technologies with a proven ability to efficiently lead teams to work in a collaborative way to deliver projects on schedule.

SKILLS

Frameworks & Technologies

Azure, AWS, .NetCore, .Net Framework, BDD, TDD, Event sourcing, Message brokers, Docker, Podman, REST API, gRPC, Web Sockets, EntityFramework, VueJs, React, Angular, Nuxt, NextJs, KnockoutJS, Wordpress

Expertise

Web Development, Continuous Integration, Complex systems, Software architecture, Performance optimisation, Business intelligence

Programming Languages

C#, SQL, VB, Java, PHP, Python, JavaScript, TypeScript, HTML, CSS

Soft Skills

Leadership, Mentorship, Strategic thinking, Time management, Creativity, Communication, Critical thinking

WORK EXPERIENCE

Tech Lead

Innovation group | 07/2022 - Present

- Mentored and upskilled my entire team from BE/FE-only developers into full-stack roles, which drastically improved the performance and reliability of our team.
- Architected and led the team in developing an interactive workflow UI. The UI gave our customers the ability to have full autonomy over their workflows which helped us onboard new partners and clear up a significant amount of hardcoded tech debt.
- Took the initiative to completely re-architect the QA team's approach to E2E testing, which enabled more reliable E2E tests and boosted productivity company-wide.
- Architected and led the team in developing a new complex rates management system whilst working closely with the product team. This new system resulted in the onboarding of new partners and supplier customers
- Fixed async blocking issues which resulted in a 1000% increase in request throughput and stabilised concurrent calls from an average response degradation of 60,000% to only a minor 5% degradation instead.
- Achieved MVP employee of the year award for every I have worked at innovation group
- Led the highest-performing Scrum team in the company, achieving 88% commitment success with predictable output and consistently high velocity as the team matured.
- Developed a verbose internal TUI tool for the development team. This tool includes many features such as local environment management (docker and podman), local nuget package management and local git repo management, which, on average resulted in each employee saving 2 hours per week

EDUCATION

First Class (Hon.) - BSc Computer Science in Digital and Technology Solutions (Software Engineer)

University of Essex | 10/2016 -
09/2019

HONOR AWARDS

Academic Prize: Dean's List for Excellence

University of Essex | 2016 - 2017

ACHIEVEMENTS

Hacktoberfest

10/2021 - 11/2021

Hacktoberfest

10/2020 - 11/2020

Hacktoberfest

10/2019 - 11/2019

PUBLICATIONS

- 'Free secure hosting with GitHub pages and Cloudflare' (*DEV*, 31 May 2023) [↗](#)
- 'Chatbots? My first machine learning experience' (*DEV*, 28 June 2020) [↗](#)

Senior Full Stack Developer

Innovation group | 04/2021 - 07/2022

- Implemented a new FE caching strategy that drastically reduced the request count, which resulted in platform wide speedup and stability
- Containerized the entire platform, set up nightly image pipelines and created helper scripts, which, as a result, vastly improved the performance of the development teams allowing features to be fully developed and tested locally
- Achieved MVP employee of the year after passing my probation

Software Consultant

Fundipedia (Sibling company of Atlas) | 03/2020 - 04/2021

- Architected, developed and led the production of new microservices and as a result increased the performance, cost-savings, and scalability of Fundipedia.
- Led the R&D and Innovation for Fundipedia which resulted in new business intelligence reporting integration to further equip customers with the data they need to make smart business decisions.
- Applied innovation to leverage a range of new data analytics and comparison technology which resulted in the generation of new sales leads.
- Produced a variety of articles and marketing material for Fundipedia which improved the company profile and improved market exposure.
- Took a leadership role during crisis by mentoring my subordinates to approach complex or catastrophic problems with an open mindset and logical approach resulting in increased service stability and client confidence.

Full Stack Developer

Atlas Computer Systems LTD | 07/2015 - 03/2020

- A mobile app for stock management was launched and developed with Nativescript, which eventually lead to OS compatibility issues. I took lead on this project and successfully completed a re-write of a mobile app from Nativescript to Xamarin, resulting in better performance, logging, integration, and continued OS support.
- The company consistently had issues with spinning up new instances of products in the cloud. I took the initiative and developed from scratch a cloud infrastructure automation system, subsequently, this allowed the company to spin up new instances of products with a click of a button, removing all previous manual intervention.
- Successfully created and led a project to develop a new .Net Core REST API for an existing product and, as a result, helped us secure new client contracts.
- Applied differential diagnostic to leverage multiple CI platforms for existing products. This resulted in a boost of productivity, reliability, and security in the current software development lifecycle.
- Developed and implemented a full caching layer implementation by leveraging Redis which resulted in a huge 99.4% boost in performance of data retrieval.
- Led and managed the development of a new partner portal for an existing product resulting in the onboarding of new partners.
- Earned a First Class Honours degree in Computer Science whilst maintaining my full-time role at Atlas. This was an exceptionally demanding experience that forced me to be very disciplined and take strategic approaches to my learning. My work commitments frequently overlapped with exams and

- **'Net core host builder for Xamarin? Yes please!' (DEV, 21 June 2020) [↗](#)**
- **'Compilers - One of the more intimidating projects' (DEV, 21 June 2020) [↗](#)**
- **'Defining types at runtime? why not...!' (DEV, 31 May 2020) [↗](#)**

coursework deadlines, requiring me to develop a comprehensive note-taking system that allowed me to digest complex topics in the brief windows of time available to me for revision. My ability to context-switch between professional and academic responsibilities, combined with effective time management, proved essential to my success. This experience not only developed my technical prowess but also forced me to develop a strong set of robust skills in prioritisation, adaptive learning, and performing under sustained pressure.

Apprenticeship Software Developer

Atlas Computer Systems LTD | 07/2014 - 07/2015

- StaffSquared was launched with the intention to provide HR management with an online solution; however it had many bugs due to legacy issues. I took lead in creating the appropriate solutions which resulted in the eradication of the known bugs within 6 months I learned the ropes of C# and front-end development which allowed me to further progress to the next stages of my career.
- Successfully completed my apprenticeship which resulted in me receiving a level 3 diploma.

P E R S O N A L P R O J E C T S

Sourcey [↗](#)

01/2020 - Present

Developed and published an open source C# library for event sourcing. I noticed that there is a lack of tooling in the c# space for event sourcing that is easy to opt into desired parts without having to follow an overly opinionated flow. So I decided to use my experience and expertise to create something fresh and consumer friendly.

Muck Away

12/2021 - 05/2024

Developed and architected a full-stack SaaS solution for the haulage industry. Muck Away featured many capabilities: an administrative portal for contract driver management, a mobile application for drivers, an identity server for authentication, email generation, and PDF generation. However, the real innovation of this platform was the challenge of thermal printing in React Native with no existing solutions. To overcome this problem, I did the following: I decompiled a C library I found, reverse-engineered its architecture, and implemented an ESC/POS command builder from scratch in TypeScript. This resulted in compatibility across all thermal printer models and not just specific models/makes, which was a first in the React Native ecosystem. The most complex challenge of thermal printing was generating images that would render correctly on thermal hardware, requiring me to implement the Atkinson dithering algorithm so that the images could be printed accurately on different paper sizes.

Hostly

05/2020 - 11/2020

Developed and published a NuGet package called Hostly. Hostly is a .Net Core style host builder for Xamarin forms, which allows consumers to take full

advantage of the .Net core ecosystem in Xamarin forms projects.

Chatbot

01/2019 - 09/2019

For my final year dissertation, I developed a conversational AI chatbot from scratch despite having no ML experience. Over several months, I taught myself the fundamentals to build a custom Neural Machine Translation (NMT) model that could understand and generate human-like responses. The most significant technical challenge of this project was during training. I had a large dataset from various sources. However, feeding all of this data to train the model was no easy feat. I designed and implemented a custom streaming architecture that chunked data into memory-efficient batches, which enabled the model to learn from the full dataset without any hardware limitations. This project not only earned top marks for my dissertation but sparked my keen interest in ML and AI.

Sound it Out

07/2018 - 07/2019

During university, I identified a widespread problem affecting students: the sheer volume of course materials meant that there was a significant amount of reading required. This resulted in a lightbulb idea "Sound It Out", an open-source enterprise SaaS platform I founded to improve academic accessibility. The solution leveraged Google WaveNet's to generate lifelike audiobooks from any document format. Giving students the flexibility to learn any written material audibly. I quickly received validation of this idea. Friends who tried out "Sound It Out" for their studies said that it helped them handle their course material with ease. What began as a personal frustration became a practical and useful solution through technical innovation.

Clipboard

07/2018 - 07/2019

Whilst working on "Sound It out" I needed an easy and consistent way to extract text from the documents being uploaded. After searching through existing solutions nothing quite matched my requirements. And so I developed and published a NuGet package for easy text extraction with wide range of support for different file types (.pdf, .docx, .xlsx, .txt, .xml, etc)

Blocker

10/2018 - 11/2018

Developed a turned based multiplayer game in Java. Similar to tetris, but with power ups and a competitive twist