Matthew Spence

FULL STACK PRODUCT ENGINEER

With a passion for user experience & cross functional teams

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SENIOR ENGINEERING MANAGER: COMPANIES JUNE 2024
LEAD ENGINEER: CARBON JUNE 2023
LEAD ENGINEER: FRONT END OCTOBER 2021

Novata October 2021 - Current

Achievements

Joined as **founding engineer #1**. Established the product & engineering team, & was instrumental in **scaling it to 50 people** in the first year.

- **Eight figure annual recurring revenue**
- **10,000+ companies submitting ESG data**
- **87% report completion rate**
- **$12 trillion of assets under management** represented amongst our private investors customer base
- **$50 million+ in investment** to date

Selected to lead an entirely new product line providing carbon calculation & emissions data for private companies. I built a new team & product that delivered **7 figure annual recurring revenue in its first year of launch**.

Promoted to engineering manager of "Novata for Companies", oversaw a number of squads including carbon calculation, regulations & private companies.

Drove AI adoption with **integration of 3rd party AI APIs, & both foundation & in house models** designed to streamline user workflows & reduce friction in the data collection process. Achieving:

- **Improved carbon calculation accuracy by 30%** by using AI to better match emissions factors.
- **Reduced data entry time up to 50%** by automating parts of the data collection process.

Responsibilities

Lead cross functional product engineering teams to rapidly deliver viable products from scratch. Oversee delivery from concept to launch & beyond. Manage & mentor software engineers & engineering managers, ensuring efficiency & quality across the team.

Communicate & collaborate with varied stakeholders & customers across the business to ensure product aligns with the needs of customers & the goals of the business.

Skills & Technologies

TypeScript, React, Express, Node.js, PostgresSQL, Redis, Docker, Kubernetes, AWS, Git, AI, Product Design, Slack, Jira

CTO, COO & COFOUNDER

Friends or Friends January 2021 - September 2021

Achievements

Delivered bespoke software to meet the legal requirements for the distribution of plants.

- Satisfied **strict statutory requirements** for the distribution of plants
- **100% reduction in fulfillment costs**
- Industry leading dispatch times & **★5 customer satisfaction** (trustpilot.com, reviews.io)

Created packaging, fulfillment & support processes for delicate/semi-perishable products. Built an ecommerce fulfillment team with specialist skills around the care & dispatch of live plants from scratch. Bootstrapped everything with **no outside investment, growing it to $75K in monthly revenue**. Procured & out fitted a warehouse space optimized for the business's operations. Created & nurtured leadership roles within the team, **gradually transferring responsibility to make teams self managing**.

This was my first role where I had to step entirely outside of software engineering & tested my ability to creatively solve problems in an unfamiliar & high pressure environment. This experience was invaluable in my development of my **ability to think outside the box** & **pragmatically solve complex problems** in a novel domain.

Responsibilities

Establishing operations & providing all necessary technical solutions. Sourcing and/or implementing software to facilitate marking, sales, operations, & customer support, quickly & efficiently, with minimal cost.

Additionally everything & anything required getting a bootstrapped start up ecommerce store off the ground. This truly was a many hats role, & at times included stepping well out my comfort zone into areas such as marketing, sales, customer support & plant care.

Skills & Technologies

JavaScript, PostgresSQL, React, Redux, Ruby, Rails, Heroku, Git, Product Design, Ship Station, Shopify, Slack

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Accomplished Full Stack Software Engineer & Engineering Manager with over two decades of experience in driving high-performance product teams & delivering robust software solutions. Proven track record in scaling teams, optimizing development practices, & generating substantial revenue growth across multiple industries.

Originally from the UK, I now live in San Diego CA with full permanent US residency.

Experience

Web Application Development	**20+ years**
Scrum & Agile methodologies	**13+ years**
Leading remote teams	**10+ years**
Start ups (as founder & employee)	**10+ years**
TypeScript & React	**9+ years**
Ruby & Rails	**9+ years**
AI Tools & APIs	**1+ year**

Highest level of education
Multimedia Design & Technology BSc

Popular Posts

You Don't Need Microservices
Jul 27, 2022   👏 1K   💬 37

How Do I Deal With Underperforming Engineers?
Apr 21, 2022   👏 885   💬 12

Undefensive Code Review
Jun 27, 2022   👏 155   💬 1

Example Code

ts-rest-mock
A Typescript library for automatically mocking HTTP requests based on their contract schemas.
github.com/msaspence/ts-rest-mock

PlantPassporter
A Ruby on Rails & React app for the required documenation for distributing live plants within the UK.
Access available upon request

Trakio Ruby Client
A Ruby Gem for Trakio's API.
github.com/msaspence/trakio-ruby

Trakio JavaScript Client
A JavaScript client for Trakio's API.
github.com/msaspence/trak.io.js

This Website
Not technologies I'd use if I was starting today. But I'm a pragmatist at heart & if it aint broke don't fix it.
github.com/msaspence/msaspence.com

LEAD ENGINEER: INTEGRATIONS APR 2020
LEAD ENGINEER: ANALYTICS MAR 2018
STAFF SOFTWARE ENGINEER FEB 2017

Groove Feb 2017 - May 2021

Achievements

Using a mixture of an off the shelf event streaming platform (keen.io), augmented with a bespoke in house system built on Elastic Search, we were able to **deliver a powerful reporting product quickly & efficiently**. This hybrid approach meant our solution **wasn't confined by the limitations** of the 3rd party product but was still **able to leverage many of its benefits**.

Utilized a number of existing systems already in place to create a highly resilient data collection endpoint that boasted **99.99% uptime**.

Responsibilities

Plan & execute architecture, & end-to-end implementation of the company's customer facing analytics & reports product. Ensuring quality of work for contributing engineers assigned to the analytics team. Liaise & coordinate with other teams, specifically system administrators, & Head of Engineering. Define & outline product requirements & vision with Head of Product.

Groove is a fully remote team distributed across several timezones. This role required a high level of autonomy solving complex problems alone when other team members were simply offline. Equally it required planning & collaboration with a number of teams & individuals spread across said timezones.

Skills & Technologies

JavaScript, Docusaurus, MySQL, ElasticSearch, Kafka, React, Redux, Ruby, Rails, AWS, Git, TDD, jQuery, Emotion, User Experience, Product Design, Code Review, Trello, Slack

STAFF SOFTWARE ENGINEER

Holiday Extras Dec 2015 - Feb 2017

Achievements

Delivered to market from scratch a post checkout trip planner that **increased average customer lifetime value by 21%**. Provided a mix of personalized free content & tools along with time sensitive product suggestions to lift per trip spend on our platform.

Responsibilities

Produce bug free, future proofed code, setting the standard by which others developers work. Translate the needs of the business into solutions. Working to & on the company values, the team standards & best practices.

Identify, react quickly & take ownership of any serious problems with quality. Improve the performance & development of the team. Sharing & supporting individuals by helping create team processes, following them & enforcing their use by others. Identify technical potential in others & work with them to improve.

Skills & Technologies

JavaScript, React, Backbone, Redux, Ruby, Rails, AWS, Git, TDD/BDD, CoffeeScript, jQuery, Less/CSS, Scrum, Pods, User Experience, Product Design, Code Review, Jira, Slack, Pair Programming

CTO & TECHNICAL COFOUNDER

Trakio Apr 2013 - Dec 2015

Achievements & Responsibilities

Driving our customers' activation & reduce churn by understanding their users better. Executed a number of pivots searching for a repeatable & scalable business model. Each time creating hypotheses & testing them.

As the CTO I was responsible for planning, building, managing, & documenting several production services & client libraries from scratch. I implemented the provisioning of our hardware infrastructure on AWS using Chef, along with service monitoring & redundancy, having had no previous experience of SysAdmin. I recruited & managed all our technical employees & contractors, managing their on boarding, training, & providing direction & mentorship for their personal development. Utilizing online tools to collaborate remotely, often across timezones.

Skills & Technologies

Ruby, Rails, Sinatra, Sneakers, OAuth, MongoDB, WebSockets, RabbitMQ, Redundancy, HAProxy, Nginx, Monit, Capistrano, Chef, AWS, Git, TDD/BDD, JavaScript, CoffeeScript, D3, Load Testing, Highcharts, jQuery, Less/CSS, Photoshop, Application Design, User Experience, Product Design, Infrastructure Design, Technical Support, Code Review, Trello, Slack, Pair Programming

Relative Strengths

Typescript, React

Ruby, Rails, Node.js

Product Design, Project Management, UX

PostgreSQL, MySQL, MongoDB

AWS, DevOps, Kafka, ElasticSearch

Photoshop, Design, Sketch

Other Interests

I understand the importance of a balanced lifestyle, & have many interests beyond software development. Here's how I like to recharge:

Being a Dad
I say being a Dad but really I mean vicariously reliving my childhood, going to scouts & playing Lego.

Building Models
At my core I like to build things, building software is incredibly rewarding but sometimes it's nice to work on something physical.

Hiking & Bouldering
I love being outside & away from the city. Southern California has so much to offer close by & I'm just starting to scratch the surface.

Snow sports
I'm a proficient skier & a distinctly average boarder. California wasn't the best move for snow sports but one day I'll make it back to the slopes.

Other Previous Roles

CTO & Technical Cofounder
Virally Jun 2012 - Apr 2013

Senior Consultant & Lead Developer
Fruitbowl Media Mar 2012 - Aug 2012

Web Developer
University of Kent - Web Development Team Nov 2007 - Mar 2012

Education

University of Kent
Multimedia Design & Technology BSc Sept 2004 - July 2007

Royal Hospital School
GCSEs & A Levels (UK High School) Sept 1997 - July 2004

A Levels
Business, Physics, Maths, Politics,

GCSEs
English Literature, English Language, Maths, Double Science, Geography, History, Maths, French,