

## Matt Duck

I'm a software engineer. I've spent the last seven years contributing to engineering teams in startup environments where I've been responsible for a bit of everything, doing an engineer -> team lead -> manager progression at three small companies.

My interests and experience include:

- Software development, particularly web backend and distributed systems. I've worked a lot with **Python**, but can get by in other languages<sup>1</sup>.
- "Devops" / infrastructure / sysadmin work. I've primarily deployed on popular cloud environments like **AWS**<sup>2</sup>, using **Linux**, **Docker** and **Kubernetes**. I enjoy monitoring production environments<sup>3</sup>.
- Relational databases, primarily using **Postgresql**.
- How to build effective software engineering teams.

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<sup>1</sup> eg. Go, Javascript, Emacs lisp...

<sup>2</sup> usually automated by tools like Terraform.

<sup>3</sup> using tools like Prometheus, Alertmanager, Grafana, Datadog, Sentry.

## Waybridge 2020/04 - present

Waybridge<sup>4</sup> is a New York/London/remote B2B startup using technology to transform the raw materials supply chain. I joined as the first **Software Engineer** on the UK side of the team, and am currently working as **Engineering Lead**.

- I spent a lot of my first year building core components of the product across our data model<sup>5</sup>, API layer<sup>6,7</sup> and cloud infrastructure<sup>8</sup>, contributing to hiring, and helping to establish good practices in Engineering<sup>9</sup>.
- Since April '21 I've been in a hands-on management role leading one of our product engineering teams and managing the team's five other engineers across London, NY and Amsterdam. We're responsible for multiple parts of the Waybridge product, including the automated systems that customers use to integrate their data with Waybridge<sup>10</sup>, and features that are used on-site by customers to take physical delivery of large amounts of raw materials.

<sup>4</sup> originally named *CMDTY*. It was started in Sept 2019 by an [experienced founding team](#).

<sup>5</sup> Postgres and Python.

<sup>6</sup> Python, Django, GraphQL.

<sup>7</sup> also small frontend contributions using Typescript, React and Relay.

<sup>8</sup> AWS provisioned using Terraform and deployed on Kubernetes (EKS) using Helm via Gitlab CI.

<sup>9</sup> eg. I setup our core monitoring and alerting components using Python, Datadog, Opsgenie and Terraform.

<sup>10</sup> mostly batch-based workflows using AWS Transfer, FTP, S3, Mailgun, various Python code.

## Ometria 2017/07 - 2020/01

Ometria is a marketing SAAS product for online retailers. It drives revenue for brands like *Not On The High Street*, *Hotel Chocolat* and *Made.com*. I joined as a **Backend Developer** when the company had ~25 people, and saw it grow to more than 100 people. Through this time I was promoted to **Senior Developer**, **Lead Developer** and then **Engineering Director**.

- I was the main developer on our data ingestion systems for 18 months. These were business-critical, realtime features<sup>11</sup> that processed all the incoming ecommerce data points for all Ometria clients - up to 10 million records daily (orders, products, customers etc.).
- I worked on more than 50 separate production components or libraries - some as a contributor, and others as the main author. They used a variety of programming languages<sup>12</sup>, databases<sup>13</sup>, and message brokers<sup>14</sup>. Our systems ran in cloud environments<sup>15</sup>, and used modern monitoring tools and practices<sup>16</sup>. I ran various data and infrastructure migrations<sup>17</sup>.
- I was the first manager in Engineering other than the CTO, managing four engineers. As part of this, I helped one of my direct reports become the first person in the company to transition to fully-remote work.

<sup>11</sup> they used Python, Postgres and various AWS products, running on Kubernetes.

<sup>12</sup> primarily Python, but sometimes Go or PHP.

<sup>13</sup> a lot of Postgres (on RDS and Aiven). Some work on DynamoDB and Redshift.

<sup>14</sup> Kinesis, SQS, Beanstalkd.

<sup>15</sup> AWS, often configured using Terraform. Some GCP. Mostly on Kubernetes.

<sup>16</sup> Prometheus, Alertmanager, Grafana, OpenCensus tracing.

<sup>17</sup> eg. a zero-downtime migration of our public HTTP API to an ALB, which allowed us to route URL paths to be served by particular microservices.

- I met with the technical due diligence auditors for our [\\$21M Series B funding round](#). I managed their access to team accounts, and wrote documents that were specifically described in their report as "thorough and excellent".

### *LETO 2015/02 - 2017/04*

LETO were a small (~15 people) software agency for all kinds of technical projects. I joined as a **Web Developer**, and was later promoted to **Head of Engineering**. I worked for clients ranging from very small startups to bigger companies like *Camelot*, *Admiral*, and *Maxus Global*.

- I worked on a consumer mobile product for *Camelot*, which streamed real-time data from the lottery machines at Pinewood Studios during the *Lotto* show on BBC One. I automated infrastructure<sup>18</sup>, designed load tests<sup>19</sup> and implemented a monitoring solution<sup>20</sup>.
- I was the main developer on backend systems for *Printt* (then named *AIWIP*), which at the time was an app providing printing services for students at UK universities. For about a year I was responsible for evolving and maintaining their on-site printing hardware<sup>21</sup>, software and backend applications<sup>22</sup>, overseeing growth from 5 to ~35 printers at various locations in the UK. I helped them transition to an in-house team following investment.

### *Other experience* (varied dates)

- I interned at **Musicmetric**, a music analytics startup who were later [acquired by Apple](#). I wrote a report analysing geographical trends in their bittorrent datasets<sup>23</sup>. They later expanded on this work as part of a marketing piece, which saw them receive [coverage on BBC news](#).
- Pre-covid I spent a year organising [Emacs London](#), a small monthly meetup focused around Emacs<sup>24</sup> (currently on hold).
- I received a **first-class BSc in Music Technology** at the University of Kent, which is where I started programming.

<sup>18</sup> using Terraform to automate setup of AWS resources: VPCs, security groups, EC2, RDS, S3 buckets, Route53 records, Redis on Elasticache, etc.

<sup>19</sup> I used loader.io to test Go HTTP endpoints.

<sup>20</sup> using Prometheus, Grafana, Sentry and Newrelic.

<sup>21</sup> these were Raspberry Pis running our Python applications using Supervisor. I wrote scripts that used Ansible to provision the Pi images. They used SSH tunnels and autossh to communicate with our servers.

<sup>22</sup> which used Python/Django, Go, PostgreSQL, RabbitMQ and Nginx, and ran on Ubuntu EC2 machines.

<sup>23</sup> using Python and matplotlib

<sup>24</sup> Emacs is a programming/text-editing/computing environment and one of the "classic" programming text editors.