


# Emma Oatley

Software Engineer

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## SUMMARY

Software engineer with a holistic mathematical and software background, prepared to relocate. Coding bootcamp graduate, experienced in building full stack projects and maintaining backend microservices. Interested in backend engineer roles.

## EXPERIENCE

### SAINSBURY'S TECH | ENGINEER

Feb 2023 – Present | London

- As a backend engineer, I maintain 20+ microservices that make up the retail price and promotion engines using Scala, Akka, PostgreSQL, Kafka and Apache Airflow.
- We are migrating our microservices from legacy cloud infrastructure onto a modern platform. For this, I designed our new GitHub branching and deployment strategy, and reconfigured our services to use Kubernetes API instead of Consul for service discovery.
- The go-to expert on our services. I drive their improved stability via regular updates to their error handling, implementation, alerts and documentation. For example, I identified that a select group of customers were not receiving Nectar points, and I eradicated data loss by fixing Kafka configurations in our 'full refresh of prices' process.
- For my ongoing development I am participating in a cloud challenge, for which my code can be found on GitHub. I am completing Martin Odersky's course on functional programming in Scala, and have enjoyed various workshops with AWS, including a course on their Elastic Kubernetes Service.

### SAINSBURY'S TECH | ASSOCIATE ENGINEER

April 2022 – Feb 2023 | London

- As a full stack engineer, I worked towards mastering retail promotion data with Node.js, React, MongoDB, Kafka, Kafka Connect, TypeScript, and Cypress.
- Implemented a feature to allow a new type of Nectar at Argos promotion.
- Worked with our Data Engineer to develop a data model for complex promotions, and implemented the model in Mongoose for MongoDB.
- Actively took part in and led agile ceremonies such as retro, refinement, stand-up, and sprint review.

### ACADEMY | FULL STACK CODING BOOTCAMP SCHOLAR

Oct 2021 – Feb 2022 | London

- Learned techniques in JavaScript such as closures and recursion to solve coding katas.
- Created full-stack apps using React and TypeScript on the front-end, and Node.js, Express and PostgreSQL on the back-end, independently and in groups.
- Implemented automated unit and E2E tests.
- Developed emotional intelligence in leadership skills sessions.

### WESTMINSTER ACADEMY | MATHS TEACHER

Aug 2019 – Aug 2021 | London

- Taught engaging lessons which allowed all students to progress.
- Innovated by designing mail-merges to routinely provide all parents with quantitative and personalised feedback.

## SKILLS

### PROGRAMMING

Proficient:

TypeScript • JavaScript

Experienced:

Scala

Familiar:

Shell

### LIBRARIES/Frameworks

React • Node.js • Akka

### TOOLS/PLATFORMS

MongoDB • PostgreSQL  
Kafka • Git • Docker  
Kubernetes • AWS  
GitHub Actions • DataDog  
New Relic • Airflow

## EDUCATION

### IMPERIAL COLLEGE

MSci MATHEMATICS

Oct 2014 - Jun 2018 | London

Specialised in Algebra and Geometry

Grade: 2.1

### UNIVERSITY OF CANTERBURY WITH IMPERIAL COLLEGE

PGCE IN MATHEMATICS WITH QTS

Sep 2018 - Jun 2019

Maths Teacher Qualification

Grade: Distinction

## OTHER INTERESTS

### HOBBIES

Climbing • hiking • food

### LANGUAGES

A1 German in progress  
B1 French mostly forgotten