

# PHIL DOBSON

LEAD FULL STACK PRODUCT ENGINEER



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London, UK

## PROFILE



I'm an entrepreneurially spirited full stack product engineer and engineering lead who thrives on solving complex customer problems through the application of technology. I'm a self-starter dedicated to continual learning and self-improvement, using the energy, knowledge, and skills I acquire to support and mentor others.

I enjoy taking incremental approaches to building software by making pragmatic design decisions that optimise for extensibility and maintainability without compromising on delivery speed. I take pride in delivering customer value as early as possible, iterating through build, measure, learn cycles to ensure products evolve efficiently and provide best in class customer experiences.

## SKILLS



### Vast Experience

- Leadership and communication
- Problem solving / solutionising
- Software design and architecture
- API design (REST / GRPC)
- React / Javascript / Typescript
- Java (OOP, DDD) / Groovy
- Spring framework (Spring Boot)
- Kafka / Messaging
- RDBMS (PostgreSQL/MySQL)
- Domain Driven Design (DDD)
- Testing (TDD, JUnit, BDD, Spock)

### Strong experience

- Python
- Docker / Kubernetes
- Observability (tracing, tracking)
- Next.js / Node.js
- Jest / React Testing Library
- HTML / CSS
- NoSQL Databases
- Terraform/OpenTofu (IaaS)
- AWS (S3, Lambda + more)
- Shell scripting (Bash)
- Data analysis (Snowflake)

### Developing experience

- GraphQL
- Graph Databases
- SEO optimisation
- Kotlin / Golang / Rust
- Electron
- Pandas / numpy / scikit-learn
- Data + feature engineering
- Graphic Design
- ML / NLP / LLMs
- GCP / Azure
- CAD / 3D modelling

## EXPERIENCE



### Founder and Director

Pyrifera Technologies Ltd. (trading as Footprints Registry) | London

Jan 2023 - Nov 2023

Drawing from the extensive knowledge I acquired at Wise, I established and operated an innovative wedding registry startup that facilitated cash donations through the use of Open Banking technology. The experience I gained was incredibly broad as I was responsible for everything from company inception to product launch, including:

- Designing, architecting, building and platforming a 'startup as a service' solution that powered the Footprints Registry product. This included a generic user management and authorisation service (Java/Spring Boot), landing pages (Next.js) and a brand agnostic React component library on Storybook. The app was hosted on AWS (Docker on ECS with Lambdas, DynamoDB, S3, App Mesh, ELBs, ALBs, ECR, IAM and CloudWatch), with all infrastructure configured using the Terraform/OpenTofu IaC tooling.
- Capturing, analysing and making product enhancements based on customer behaviour insights gleaned from Google Analytics, HotJar and Mixpanel.
- SEO optimisation, including keyword research and content generation powered by ChatGPT.
- Product and brand design, including implementing vertical rhythm and a typographic scale to give the product a comfortable and natural feeling UX.
- Negotiating pricing and securing contracts with Open Banking providers.
- Writing comprehensive legal documentation including terms and conditions and privacy policies to ensure fairness and protection for users whilst also legally protecting and indemnifying the company from abuse.



### Senior Product Engineer - Investments Platform

Wise (formally TransferWise) | London

Nov 2022 - Jan 2023

I joined a highly experienced full stack engineering team with the aim of quickly productionising and scaling an innovative new product offering - Investments. Amongst others, my achievements included:

- Leading the solutionising and implementation of a Java/Spring Boot event driven global tax reporting solution over Kafka. This involved a huge amount of collaboration with both our in-house tax team and our external consultants, as well as a carefully crafted regression test suite to ensure correctness.
- Working with native mobile engineers to design and build extensible APIs for customer and reference data. These APIs were implemented in a Node.js 'Backend for Frontend' (BFF) written in JavaScript.
- Calculating historical liquidity usage and approximating its cost. This analysis was conducted in Python, using Pandas dataframes, numpy and matplotlib and shared through a series of Jupyter Notebooks.

### Full Stack Tech Lead - Virality

Wise (formally TransferWise) | London

Oct 2018 - Nov 2022

As the engineering lead, I collaborated with all members of the cross-discipline product team to create a technical vision, an extensible architecture, as well as efficient working processes and communication. This included:

- Leading, coaching, mentoring and scaling a high performing team.
- Working with the product manager and wider product team to estimate and prioritise work effectively to maximise customer value. Creating a culture of closing the loop by measuring and retrospecting on the teams impact.
- Forecasting and hiring, including interviewing at all stages of the pipeline including finals/CTO level.
- Collaborating with the team to set the vision, goals and create and track technical OKRs.
- Communicating and coordinating plans across teams within the organisation, identifying opportunities for teams to synergise, or resolving potential conflicts in plans.
- Having a strong domain knowledge on specifically on pricing in the FX transfer market, and viral growth strategies including 'refer a friend' schemes.

### Senior Product Engineer - Liquidity Management and FX Risk

Wise (formally TransferWise) | London

Apr 2017 - Oct 2018

I made enhancements to, maintained, and supported a vast suite of Java / Spring Boot microservices that managed the company's liquidity, FX exposure, trading and safeguarding operations. The contributions I remain proudest of were the architecting and building of three major solutions:

- The complete solution and set of operational processes that ensured customer funds are duly segregated from company funds and safeguarded in ring fenced accounts. The solution had to be highly configurable as safeguarding obligations differ regionally, and it was important to minimise the use of the companies working capital to improve the speed of customer transfers.
- A robust and performant reconciliation framework that ensured that all transactions and reservations were accurately recorded in the real time ledger component of our liquidity management system.
- A workflow orchestration platform for microservice architectures (similar in nature to Netflix Conductor) that enabled complex, partially automated processes to be augmented by manual input from operations team members. This solution is now also used as the backbone for customer self service workflows at Wise.

### Senior Associate - Treasury / Global Payments

J.P. Morgan Chase | Bournemouth

Sep 2012 - April 2017

Joining initially as a graduate, my five year tenure culminated in being selected as one of five founding engineers to build a POC of the company's new global consolidated payments processing platform powered by Apache Storm, Kafka and Cassandra. The project was ultimately funded and development expanded out to six global teams.

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## EDUCATION



### BEng Electronic Engineering (First Class with Honours)

University of Southampton