Oliver Diamond

I am a lead/principle full-stack Node.js/React.js/Kubernetes/AWS software engineer with a prior eclectic career in other sectors (although I've been programming since I was 13). I have experience in many languages and technologies - and in approaches that emphasise cloud-based microservices, SOLID code design, devops, CI/CD, and Functional Programming. I am especially experienced in how to grow dev teams, and how to prioritise business value vs tech debt.

- Current Position: CTO, Inhabit
- Specialisms: Node.js, React.js, Typescript, Mongo, Kubernetes, AWS Microservices, mentoring juniors.
- Passions: Kubernetes, functional programming, point-free programming, devops.
- Physics, 2:1 – Imperial College London (specialism: Computational Simulations)
- Extensive experience outside programming: Finance, Politics, Media, Communications, Film, TV, Theatre.

Tech Career Overview

I am I highly experienced hands-on Tech Lead, with proven experience building and maintaining entire digital products and development teams. I have a very wide set of skills, applicable right across tech departments, but I have focussed on:

- **Building and managing teams** of full-stack **React.js/Node.js** developers, with >50% junior/beginners.
- Building **microservice architectures** (using Helm & Kubernetes to create a development/devops platform). I am proud to have **personally built (and deployed) state-of-the-art CI/CD platforms on Kubernetes for multiple companies** that offers developer tools (Jenkins, JenkinsX, ArgoCD), and devops tools (Prometheus, Loki, Grafana, Istio) - the only cost to the company being cloud compute.
- Growing a culture of best practices within the dev team (**FP, SOLID code design, domain driven design, testing, code quality, Typescript, the latest technologies, & mentoring juniors**). I am proud to have mentored the developers I have worked with, and watched their abilities grow.

Prior to my time in start-ups, I have also worked for large companies like Sky, Tes (formerly the Times Education Supplement) and HSBC. At home I'm a tinkerer: RPis everywhere! I built a bare-bones spare-parts K8s lab in my attic.

I follow leaders such as: **Robert C Martin**, Fred George, Martin Fowler, Rich Hickey, Dan Abramov & Sandi Metz. And I follow closely developments in the tech I have invested in: Kubernetes, React, Redux, Node, GraphQL, K8s, GoLang, TypeScript, & JenkinsX.

I believe the highest cost to most tech companies is onboarding developers. A tech department should be structured so that new developers can start delivering value on day 1 with minimal learning required.

Skills

Programming:

- *JavaScript & (ES6+, Typescrypt, Node/React) 7+ yrs prof. exp. (Mongo, SQL, Express, React, Redux, GraphQL, RabbitMQ, Webpack, Babel)*
- *Clojure (Compojure) 1+ yrs*
- *Go*
- *Ruby (Rails),*
- *Python (Django)*
- *C++ (some Java – I'd prefer to forget)*

Delivery/Ops:

- *Microservices & Cloud (Kubernetes, Docker, GCP, Lambda, AWS)*
- *Continuous Delivery (ArgoCD, Jenkins-X, Jenkins)*
- *Version control (Git, RTC)*
- *Linux (Regolith, Ubuntu, Redhat, Debian)*
- *Spacemacs (Emacs + Vim), Eclipse, IntelliJ, Android Studio*

Methodologies:

- Agile (Developer Anarchy, Scrum, Kanban, Shape-Up)
- Devops (CI/CD)
- Test Driven Development
- Pair Programming
- Microservice Architectures
- Functional Programming (Point Free Programming)

Other Expertise

Government: I have 8 years experience across Government, public policy, and the digital & creative industries.

Finance: Aside from my tech work in banks & fintechs, I have worked as an analyst in hedge-funds and brokerages.

Communications: I have worked on public policy campaigns, in political comms, and in film & theatre marketing.

Work History

Inhabit (2022 - 2023) | *CTO*

Inhabit is a startup that helps other businesses measure and track their carbon footprint. As CTO, I manage the entire technical offering and development process. Not only building a team and delivering the product, but also working with the co-founders to conceive the tech strategy for the whole company.

As with most of my other roles, at Inhabit I work across the technical stack: building a fully customised (and free) development and hosting platform on Kubernetes (using Helm and ArgoCD), growing teams working in React, Typescript, NodeJs, Python, MongoDB, RedisDB, managing an agile development process, training and developing the skills of team members. I'm particularly proud of the way we have leveraged microservices and micro-frontends to supercharge development velocity at Inhabit.

EV (2022) | *PROJECT TECH LEAD*

At EV I managed 3 large tech teams in delivering a new product: an online pension adviser. The system was built with Node.js microservices, React front micro front-ends, and deployed on K8s. I also advised on reshaping their infrastructure and devops processes.

Performativ (2021 – 2022) | *ARCHITECTURE CONSULTANT*

Performativ is a fintech startup building a tool to track asset manager's portfolio performance). I helped Performativ in 3 main areas: formulating a general architectural strategy to use lambdas and microservices alongside a legacy PHP multi-tenancy monolith; building an ingress pipeline in AWS for ingesting users' transaction data from big 3rd party banks (APIs, SFTP & more), and offering that data up via Financial-grade APIs (FAPI).

Tempo UK (2019 – 2021) | *LEAD DEVELOPER*

At Tempo I was responsible for the entire development effort. While always being available to mentor and assist members of my team, I have concentrated efforts on introducing and leveraging technologies and practices that scale effectively. I broke a legacy monolith into microservices, moved them off Heroku and onto Kubernetes, rebuilt their CI/CD pipeline using new best practices, trained junior programmers (some into seniors). Obviously I did all this with a team that continued to deliver value - and demonstrating to investors the platform's ability to scale with only small increases in infrastructure costs.

Sky (2018 – 2019) | *SENIOR SOFTWARE ENGINEER*

Our team developed and maintained a suite of services that allow Sky's Editors to generate and publish scheduled menu changes and then serve it to ~6 million Set-Top-Boxes across the UK, Ireland, Germany, and Italy. As the team's Senior Engineer, I was responsible for directing the dev team's efforts; I prompt choices in technology, practices, and methodologies, aiming to facilitate my colleagues' work. As one of the only full-stack teams in Sky, we had concerns from hosting infrastructure to API resilience and browser compatibility. I also focussed on mentoring the junior and beginner developers across Sky – teaching beginners and leading workshops on clean code, and new technologies.

Tes Engineering (2017 – 2018) | *SOFTWARE ENGINEER*

Tes (once the Times Education Supplement) provides teaching resources to most teachers in the UK. The company used microservices, with (mostly) a MERN stack (MongoDB, Express, React, Node), and had invested heavily in the concept of micro-frontends. Teams and services were divided by domain concerns, and I worked on reference checking, supply teacher sourcing and an end-to-end timesheets application.

HSBC GFX (2016 – 2017) | *DIGITAL TRANSFORMATION SOFTWARE DEVELOPER*

My team of 6 delivered a suite of microservices in Clojure and ES6 and patched them into a legacy Java 6 / dojo.js monolith. We worked from within the modern foriegn-exchange department of the investment bank (GFX), making their products available via HSBCnet: one of the world's most used commercial payment platforms.

Makers Academy (2016 – 2017) | *SOFTWARE ENGINEERING CONSULTANT*

London's top dev bootcamp. I was involved from the beginning in Makers Academy's consultancy arm which aimed to take freshly trained junior devs and place them in teams with Makers Academy corporate partners. True to the MA spirit, I also completed the Makers Academy course - a bootcamp focussing on professional programming best practices (Agile, TDD, BDD, Pair Programming and the).

Bob & Co (2014 – 2016) | *HEAD OF DIGITAL AND COMMUNICATIONS*

A small media (film, TV, theatre) developer, and financier. I ran the technological, research & communication efforts.

SUMS Film & Media (2015 – 2015) | *DIGITAL CONSULTANT*

An independent film producer. I advised the Chief Exec on digital strategies (IMDB ← I'm three clicks from Tom Cruise!).

North Square Blue Oak (2014 – 2014) | *ANALYST*

A brokerage and corporate finance boutique. I assessed new opportunities in the digital and media sectors.

CQS Asset Management (2013 – 2013) | *MARGINS DEPT ANALYST & SOFTWARE DEVELOPER*

A $13bn credit hedge fund. I worked in liability management and also with the strategic IT team

Office of the Digital & Cultural Minister (2008 – 2014) | *SENIOR PARLIAMENTARY ADVISOR*

I managed the Parliamentary Office of Rt. Hon. Ed Vaizey MP (now Lord Vaizey of Didcot) from before his Ministerial appointment. I oversaw the running of the office, interviewing, training and managing all junior staff. I worked on campaigns such as improving WiFi provision in public libraries and adding coding into the national curriculum. I also ran a networking group, developing and maintaining relationships with many key players in the tech & creative sectors on behalf Damian Collins MP. I ran regular panel discussions, drinks receptions and conferences across the UK, focussing on issues from the digital single market to diversity in the media.

Education

Physics 2:1 (BSc & ARCS): Imperial College London (2005 - 2008)

I focussed on computational simulations, astrophysics, plasma physics, and the practicalities of nuclear fusion energy as a future energy source.

Final Year Degree Project (*C++*)

I received 93% for an computer simulation investigation into the process of evolution. I wrote the program from scratch, modelling biological systems. I was praised particularly for analysing great amounts of data, spotting patterns and anomalies, presenting them accessibly and quantifying the results in a manner that the department had never seen before.

Other Interests

I also play the saxophone, cook a lot, tinker with Raspberry Pis, play tennis, and enjoy distance running.