

James Smith

I am a senior technologist with experience in leading innovative development teams across many languages and technologies. I specialise in team building and leadership, client and developer relations, and software architecture, design and development. I am a passionate believer in the power of the web, open standards, open source, and open collaboration to change the world for the better.

This CV has been abbreviated for printing. For a complete interactive version, visit <https://floppy.org.uk/cv>

Leadership

- Agile team leadership
- Open source collaboration
- Scrum
- Kanban
- Strategy
- Mentoring
- Public speaking
- Training
- Technical sales
- Client relations
- Budgeting
- Proposal writing

Technologies

- Open data
- API design
- Information architecture
- Virtual reality
- 3D graphics
- Machine learning
- Computer vision
- Blockchain

Languages

- Ruby
- JavaScript / TypeScript
- C++
- C
- Java
- C#
- Python
- React Native
- Objective C
- Rust
- PHP

Web

- Rails
- Sinatra
- Node.js
- Express
- Django
- React
- HTML
- CSS
- Sass
- jQuery
- Jekyll
- OpenAPI / Swagger
- XML
- XSLT
- VRML
- WebGL
- three.js
- WebSub
- ActivityPub
- OAuth

Design

- Serverless
- Microservices
- HTTP
- REST
- HATEOAS
- SOA
- OOP
- UML
- Design patterns

Platforms

- Linux
- OSX
- Windows
- iOS
- Heroku
- AWS
- Google Cloud
- OpenStack

Databases

- MySQL
- MariaDB
- SQLite
- PostgreSQL
- PostGIS
- Redis
- MongoDB
- Elasticsearch
- MarkLogic

Tooling

- Git
- GitHub
- Kubernetes
- Chef
- Apache
- nginx
- make
- JIRA
- Ansible
- Terraform

Experience

Manyfold Jan 2024 - Present

 manyfold.app

Solo Developer

Since early 2021, I have been working on a personal project; a web application to manage collections of 3d models, specifically aimed at 3d printing. In 2023, I applied for and won some grant funding from [NLNet](#) and [NGI Zero](#), which enabled me to work on it full time for a while. The application is built in Ruby on Rails, with 3d rendering using THREE.js and Typescript. I'm developing it into a reliable tool that anyone can self-host, and that will be able to federate via ActivityPub to create a decentralized ecosystem for 3d model publishing.

dxw Jul 2019 - Jan 2024

 London, UK  dxw.com

dxw is an agency that builds digital public services, in the open wherever possible, building on open source frameworks, tools, and standards.

Employee Trustee Sep 2021 - Present

In 2021, dxw became employee-owned through sale to an [Employee Ownership Trust](#), which became the majority shareholder of the company. The trust ensures that dxw is run for the benefit of all employees, and that it remains true to its values. Two employees are elected to become trustees, providing a direct employee voice at the ownership level, and I was honoured to be

chosen by my colleagues to be one of the first to take the role.

Since taking on the role, I have helped put in place new governance structures for the EOT, helped form and guide a staff council, and provided feedback and direction to our executive board from the employee's point of view.

Lead Technologist Jul 2019 - Present

My role as a Lead Technologist is to work with our delivery teams, often in discovery and alpha phases, to help shape the technical approach for a project. This ranges from technical discovery work with a client to understand their challenges, to helping our developers design their solutions.

I have worked on projects with public sector clients including Hackney Council, the Maritime and Coastguard Agency, the Courts and Tribunals Judiciary, and HM Prisons & Probation Service. The project I'm most proud of though, is the [Find Case Law](#) service from The National Archives, which I helped pitch for, win, and then design and deliver on a very tight deadline, using unfamiliar technology.

I also line manage some of our development team, and have helped define a professional development framework for our engineers.

Apolitical Oct 2017 - Jun 2019

📍 London, UK apolitical.co

Head of Engineering

Apolitical is a platform for public servants to connect and share what's working in government. As the first in-house technical hire, I built and led an engineering team (4 people by the time I left) that created Apolitical's web platform. My role was a combination of hands-on coding, strategic architectural work, and engineering team management.

My role involved evolving the Apolitical service from a monolithic prototype to scalable microservices managed with Kubernetes. The microservices were built in a variety of languages as appropriate for the task at hand, including Node.js, Rust, Python, and some legacy PHP. Frontend development used React, Redux, and a styled components approach. We also used serverless functions, and API integrations with many third-party services.

Freelance May 2017 - Oct 2017

Short-contract freelance technology work for a range of clients. Projects included:

- Team support, code review and maintenance for the [Open Data Institute](#)
- Early-stage blockchain application R&D on the [ARCHANGEL project](#)
- API design, review, and mobile app development for the [Environmental Defense Fund](#)
- Data publishing application development for the [Food Standards Agency](#)

The OpenPolitics Project Jun 2013 - Present

openpolitics.org.uk

Founder

OpenPolitics is a project exploring how open source ideas and methods can be used in the world of politics. It started as a project to write an alternative manifesto in an open source way on GitHub; the manifesto has since grown to over 50 pages long, and has been written by over 50 contributors, many of whom are non-technical and unfamiliar with the underlying platform.

I created a user-friendly interface for editing manifesto content on GitHub, creating pull requests and so on. The interface also implements a voting system to ensure democratic control of proposals and merging.

Open Data Institute Jan 2013 - Apr 2017

📍 London, UK theodi.org

Head of Labs Nov 2014 - Apr 2017

I led the ODI's agile research & development (Labs) team, which explored new ways for organisations to publish, find, and consume data, both open and closed. Under my leadership, the team developed numerous tools including [Octopub](#), a tool to help users publish high-quality open data for free, and delivered a number of large research projects.

My role involved day-to-day team leadership and line management, but also developing programme strategy, finding clients and projects, working with project managers to deliver work, and managing a total budget of around £0.5 million.

During this time I was the technical author for the "[Data Sharing and Open Data for Banks](#)" report for HM Treasury, which made recommendations that led to the creation of the UK [Open Banking standard](#). I also authored an influential report on [blockchain technologies and their role in data infrastructure](#).

I am also an ODI registered trainer, and have delivered public training courses on technology topics including git/GitHub, and blockchains.

Web Developer Jan 2013 - Nov 2014

I was a founder member of the agile development team at the ODI, building internal and external software to support the aims of the ODI and promote Open Data adoption. Our external-facing tools included [Open Data Certificates](#), a tool to help data publishers assess the quality of their data releases, and [CSVlint](#), a tool for validating CSV files for machine-readability. We also developed internal dashboards for key company performance metrics, which were later developed into an open source dashboarding tool called [Bothan](#).

CVSSP, University of Surrey Sep 1998 - Nov 2003

📍 Guildford, Surrey, UK 🌐 www.surrey.ac.uk/cvssp

PhD, Computer Graphics & Animation

During my PhD research, I developed a method of using densely scanned 3D surface data in realtime animation systems, using a layered approach including skeletal animation and displacement mapping techniques. My full thesis is [available for download](#).

University of Surrey Sep 1994 - Jul 1998

📍 Guildford, Surrey, UK 🌐 www.surrey.ac.uk

MEng, Information Systems Engineering (2:1)

A combination of electronics and software engineering, my degrees gave me an overview of the full stack of computer technology, from semiconductors to web development. Specific subjects included numerous programming languages and techniques, computer architectures, network protocols, and machine intelligence. My third and fourth year projects explored AI and robotics, in the areas of game playing and pathfinding.

Contact Details

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