

Jo Carter (she/they)

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Talented and experienced technical leader, manager, mentor and coach; with a passion for diversity, inclusion, accessibility and enabling others. Looking for a balance between management, technical architecture and leadership, and hands-on coding. My goal is to help drive a positive change in those around me; through coaching, technology and awareness. A literal-minded individual who thrives with clarity of communication, and in an open and inclusive workplace culture.

KEY SKILLS

- Building diverse and inclusive teams; with a focus on accessibility, shaping company culture and having a positive impact on peoples lives
- Managing, coaching, mentoring; with a special interest in neurodivergent individuals
- Product-minded team leader and engineer (accessibility, domain-driven design and test-driven development, contributing back to open source projects)
- Writing technical documentation and diagrams, identifying security considerations and edge cases, user interface and experience design
- Specialisation in code gardening (refactoring, pruning, maintenance, documentation, automation, data cleaning)
- Delivery assurance (code quality, automated testing, quality assurance, edge cases, aesthetics, follow through, oversight over the entire project process)

TECHNOLOGIES AND PLATFORMS

- PHP (Laravel with Nova, Symfony)
- Javascript (Node, Typescript, Vue including Composition API, React)
- Augmented Reality (AR) – Three.js, Shaders (GLSL), GLB/GLTF/USDZ, Model Viewer, WebAR
- Analytics and data engineering (Snowplow, dbt Cloud, Postgres, SQL)
- Automated testing – Unit/ integration tests (PHPUnit, Cypress, Mocha, etc); Static code analytics (ESLint, PHPStan, etc)
- Devops/ Infrastructure (AWS, GCP, Terraform, Ansible, Kubernetes, Docker, Nginx)

EXPERIENCE

Head of Engineering, Poplar Studio (September 2020 – March 2023)

Tech Lead (September 2020 – September 2021)

At Poplar Studio, learning is at the core of everything we do, and we are passionate about educating people about AR. Our project management tools and talent cloud make it easy for brands to create and deploy AR and 3D experiences across all channels. We also have a lot of fun trying the latest immersive technologies and we want to share that fun with everyone.

I have been part of the leadership team throughout my tenure, which includes attending board meetings and presenting to investors (and applying for R&D Tax Credits). I have been responsible for building, managing and coaching the engineering team; and for technical architecture and direction, in direct liaison with the product team. I have also been responsible for shaping and maintaining an inclusive company culture – changing behaviours for the better, and inspiring others to share and be themselves.

I have been hands-on with innovating, coding and managing tech debt and infrastructure; building and managing 5+ SaaS platforms from the ground up. Our work enables brands/agencies to submit briefs through a simple interface; to manage projects with a network of creators through our platform; with a CMS to enable virtual try ons of various products including rings, watches, furniture etc. at scale, which can be integrated through a single line of code.

- Line manager for two team members, and mentor to other roles – responsibilities include annual reviews, career progression, compensation evaluation, weekly 1:1s, and 360 feedback
- Platform migration from WordPress to Vue and Laravel with Nova for the Admin (with Ansible, AWS and Postgres), including a recent upgrade to the Vue Composition API – this enabled the business to move from an MVP (which was unsuitable for building on as a base) to a flexible, scalable and secure platform
- Researching, designing and building an Analytics Pipeline and data visualisation in Snowplow and dbt cloud (with Terraform and AWS) – which enables the business to use the custom data collected to gain a fuller understanding of a user's journey through 3D and AR
- Learning about AR, with a focus on WebAR, 3D models and shaders; and working with the team to innovate and build new products, and learning via solo and paired projects
- Development of an embeddable unit integrated with a single line of code, for e-commerce clients to showcase their products in 3D and AR on their websites – including innovation around how to make AR accessible
- Upgrading and maintaining the AR-asset conversion pipeline, API, CMS and infrastructure (Node, Postgres, GCP, Kubernetes, Terraform) enabling the addition of multiple useful features to expand our offerings and make customers' lives easier

Director, Jo Carter Ltd (April 2019 – June 2021)

Senior Software Engineer – MyBuilder.com (February – August 2020)

Worked with several Symfony versions (3.4, 4, and 5) on multiple projects at MyBuilder. Involved in both upgrading legacy code and writing new functionality, both working solo and pairing with other developers.

These included: MyBuilderPlus (event-driven backend, CQRS, Symfony 5 with messenger component, DDD, Docker, Lambda and Bref; and a Symfony+Twig frontend consumer site); The MyBuilder site (Symfony 3.4), with additional microservices e.g Push Notifications, (Symfony 5 + Bref); and the Quote Tool (Symfony 4 API Write Model for a React Client app, with events and commands).

Arc.dev/ CodeMentorX Certified Developer and Peer Technical Interviewer (May 2019 – Jan 2020)

Conducting technical peer interviews as part of the vetting process for obtaining verified status on the service.

Consultant Senior PHP Developer at J Sainsbury, Daemon Solutions (May – December 2019)

Via the technology consultancy firm Daemon Solutions, I worked with the Sainsbury's Food to Order team on their website, which consisted of a collection of Symfony 4 microservices (used by their Node and React applications) and a legacy Symfony 3 monolith. I was involved in integration with internal (third party) APIs, logging and auditing, code gardening, documentation, planning and deprecation of old code. This included upgrading the monolith to the latest version of PHP and Symfony 3; and rolling out a whole range of code improvement tools across the microservices (PHPStan, Infection/ Mutation), in addition to improving overall coverage and code quality. I really enjoyed collaborating with the team, including helping mentor an apprentice developer.

Fifty Penguins in Fuzzy Socks Ltd (November 2017 – April 2019)

Freelance PHP Developer, Babylon Health (March – April 2019)

Freelance Senior Software Developer, Wellcome Trust (March 2018 – December 2018)

Part of the team responsible for the development of the Explorify website (science for primary school teachers). During my time there we refactored the majority of the codebase (PHP, frontend and the database), added additional automation for testing and QA, and upgraded the site from Symfony 3 to 4. Day to day work included code reviews, adding new features, cleaning data, maintenance and as much code gardening as I could squeeze in. I also contributed back to several of the open source bundles we used.

I was brought in as a full-stack developer, so I also worked with the team on adding automated testing using Chai, Mocha, Cypress and Nightwatch (with Browserstack); and helped refactor the frontend code (with an emphasis on accessibility and UX) and developed new features (using Webpack, Javascript and SCSS/CSS). We also added in a stats dashboard, split testing (A/B), tracking and monitoring so we could see how our new features improved the user experience.

Consultant Engineering Manager, Onlicar (November 2017 – March 2018)

Fifty PIFs was brought in to evaluate the technical process at Onlicar and help streamline it. I worked with the existing team to add in monitoring for their services, update the documentation to understand how all the systems worked together, and introduced the developers to automated testing to make their systems more resilient and add oversight to increase efficiency. I also code reviewed and QA'd new python code for a system upgrade by our internal team.

Engineering Manager, MOO (June – November 2017)

Joint Development Team Leader, The Mill (November 2014 – June 2017)

Responsible for the whole project pipeline – requirements gathering, quoting, planning and architecting, writing technical and functional specifications, liaising with project owners, instructing and liaising with the UX and design team, managing the development team, testing and development (test-driven and domain-driven development, using PHPSpec, Behat and Symfony 2/3), Continuous Integration, liaising with Sysadmins, deployment, maintenance and further phases of updates.

My team and I mainly worked on internal projects, which included developing a custom CRM; a custom solution for optimising the quoting pipeline for our 2D, 3D and design departments; an applicant tracking system with accompanying candidate microsite; an online annual review system for HR; and other internal integration projects. We also worked on a number of large external client projects, mainly on integrations and APIs for mobile applications and games, with some branching into VR.

I was directly responsible for managing several members of the development team, including coaching, mentoring and career path development. I was heavily involved in the recruitment process for new team members; through tech tests, interviews and hiring. I was part of the diversity and inclusion network within the Mill, with a focus on improving the hiring pipeline.

Various Engineering Roles (March 2006 – November 2014) – full details available on LinkedIn

Packrat Tools – Personal Project (packrattools.com) (December 2008 – present)

EDUCATION

University of Nottingham (2000 – 2005)

MSc in Information Technology: **Distinction**

BA (Hons) Law with French: **II.ii** (3rd year at l'Université de Nantes, France)

POSITIONS OF RESPONSIBILITY AND VOLUNTEER WORK

ID@Xbox Moderator (2022 – present)

Walkthrough Writer on TrueAchievements.com (2014 – 2019)

PHP Conference (London) (2016) – Part of the Mentorship program

Volunteer on the Xbox LIVE Support and Enforcement Teams (May 2012 – November 2014)

University of Nottingham (January 2004 – September 2005) – Representative on the Student–Staff Consultative Committee, IT Officer on the Student Union Societies Executive Committee

LiveJournal.com Customer Support Volunteer (January 2003 – January 2005)

OTHER INTERESTS

- Streaming (indie games) regularly on Twitch
- Computer games, achievement hunting, reading, escape rooms, puzzles, knitting: a self-confessed geek

OTHER RELEVANT INFORMATION

Autistic/ ADHD/ C-PTSD

What does that mean? – Great attention to detail; able to evaluate all possible outcomes/ edge cases; can balance big picture with little details; highly organised; keeps on top of all outstanding tasks; intense/ deep focus; wants to make everyone's lives easier/ make a difference; loves routine tasks; tenacity and resilience; integrity and commitment; excellent at multi-tasking (prefer working on multiple projects at a time); diligent; resilient; highly empathetic; and great in a crisis.