Andrew Mason

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As a dedicated Senior Design Engineer, I have a passion for creating captivating web experiences that blend visual storytelling, design and code. I thrive in collaborative environments, where I leverage my React, TypeScript, accessibility, and UI expertise to bring complex user interfaces to life, focusing on optimising performance and championing impactful storytelling.

Skills

Programming	Tools & Frameworks	Web Development	Software	Cloud & OS
JavaScript - ESNext	React - Preact	UX responsive design	VSCode	AWS - Azure - GCP
TypeScript	Three.js - Pixie.js	Performance	Chrome DevTools	Serverless functions
CSS - Sass	Webpack - Esbuild	Media optimisations	Figma	CDNs - REST APIs
HTML5	Jasmine unit tests	WebGL	Photoshop - Gimp	Linux
Node.js - Deno	Git - Perforce	Progressive Web Apps	Illustrator	Mac
Bash - Shell	Coherent Gameface	Accessibility - WAI	FFmpeg	Windows

Experience

UI Engineer │ Rare   Aug 2022 – Present

My role at Rare is to deliver UI features for Sea of Thieves and develop the UI for their next title, EverWild.

- Code UI components and services for Sea of Thieves using TypeScript, SASS and Coherent Gameface.
- Write comprehensive unit tests for all components and services in Jasmine.
- Collaborate directly with designers using Figma, turning designs into UI components.
- Optimise in-game UI performance and memory usage using Chrome DevTools and Xbox PIX captures.
- Author JSON data contracts and TypeScript definitions for Unreal event models.
- Improve workflow efficiency by analysing Node.js deployments, reducing UI unit test runtime by 90% and CI/CD UI build times by 16 minutes.
- Create animation and CSS filter prototypes demonstrating the functionality and performance impact of Coherent Gameface middleware for Rare's next-gen game, Everwild.

Senior Prototyper │ The Telegraph   Jul 2018 – Apr 2022

Embedded in the Product team, collaborating with designers, journalists, and editors to create prototypes, tools, interactive web experiences, and visual storytelling:

- Created [Milton,](Milton) an SND award-winning open-source Figma plugin using TypeScript and React, enabling designers to convert designs into responsive HTML without developer involvement.
- Developed ["A Year in Lockdown,"](A Year in Lockdown) an interactive scrolling story with a custom in-browser editor, achieving over 100K views and a 15-minute average dwell time, and an SND award.
- Built a video-wall interactive displayed in both the newsroom and lobby, animating real-time captures of the Telegraph's homepage and print paper. TypeScript, React, and Pixi.js powered the front end, while the server used Node.js, Puppeteer, Google Cloud Functions, and Firebase.
- Developed a TypeScript and React single-page application, enabling video editors to create embeddable animations using Lottie JSON, complete with a GUI for customization and a self-contained HTML output.

UI Engineer │ Simpplr Feb 2018 – May 2018

- Developed UI components in React, Redux, and Immutable.js for a large-scale single-page application.
- Collaborated closely with UX designers in an agile environment.
- Authored REST JSON API specifications for Salesforce Database engineers.

Creative technologist │ The Guardian Nov 2011 – Oct 2017

Part of the Interactive team, I developed bespoke data visualisations and interactive experiences for spotlight stories:

- Led the technical delivery of several [virtual reality episodes](#) for platforms such as Google Cardboard, Daydream, and Gear VR, including [development in Unity with PlayMaker](#).
- Crafted [promotional landing pages](#) using JavaScript, WebGL, three.js, and animation libraries, building a custom debug GUI for camera motion and shader parameter scripting.
- Created live [election data-dashboards](#) in JavaScript and D3, backed by a Node.js engine using Google Sheets APIs, achieving over 500k views with sub-15-second latency on election night.
- Built React and Node.js workflow tools, enabling designers to upload illustrations to Amazon S3 buckets and generate embeddable iframe HTML.

Front-end developer │ BBC Apr 2010 – Nov 2011

- Developed UI components, including the main navigation carousel for the [BBC homepage redesign](#), using JavaScript, CSS, and PHP.
- Produced WCAG AAA compliant code, supporting a broad range of web browsers.
- Collaborated with UX designers to prototype and validate UI interactions.

Senior developer │ Digitas (AKQA) Mar 2008 – Apr 2010

- Managed UI development of a multilingual booking system in Dubai.
- Developed location-based websites using REST GeoIP location APIs and Postcode lookup services.
- Created and presented proof-of-concept prototypes for client pitches.
- Established an internal innovation lab to foster collaboration between design and development teams.

Education

BA (Hons) Creative Multimedia │ Teesside University 2001 – 2005

- Developed a point-and-click adventure game with an audio-only interface for the visually impaired.
- Studied Human-Computer Interaction and multimedia creation, including video and audio production, 3D modelling, and web development.

Personal interests

- Created an art project exploring [privacy and surveillance of webcams,](#) inspired by Philip K. Dick.
- Developed a [glitch generation tool](#) to experiment with databending of images and learn about JPEG compression artifacts.
- Passionate about both retro and modern video games, 8-bit computing, and 3D rendering technology.
- Engaged in the open-source community.
- Interested in the Demoscene, 64K demos, ROM hacking.
- Keen on reverse engineering, performance analysis, and internet security.