

I am a daily IC with mastery of many Web Technologies. I apply Design Management methods to the intersection of software engineering, research and creative design, resulting in key contributions to startup successes; including 5yrs at <u>Google DeepMind</u>.

With a positive and diligent attitude to tasks, and a proven interest and ability to learn new skills, I can own a product or lead a team to reliably deliver to business objectives in fluid or remote environments at all levels.

I prefer to work with ethical, progressive and innovative organisations, especially those trying to: **Solve intelligence**, **use it to make the world a better place**.

I am interested in substantive, design led products supporting researchers, data insights and the creation of extraordinary web applications for big data visualisation. Recently my focus has been on DX tooling and interactive evaluation and safety metrics for machine learning models for use by research leadership.

As an experienced 'everything' engineer I have the ability to build full end-to-end systems and to place these in users hands with no compromises.

### **WORK & PROJECT SUMMARY**

Tech Lead, Kids Intelligence (Machine Learning Platform), SuperAwesome, Mar 2021 - present (3y)

- acquired by Epic Games in Feb 2021
- tech lead Measurement: operational data and evaluation metrics, product insights visualisation web UI
- tech lead *MLPT*: DX led creation and delivery of a full lifecycle MLOps platform, tools and UI's from data ingestion to model serving and evaluation
- tech lead Kid Safe Video: ML and human discovery, eval and moderation of Youtube Channels at scale

Senior Software Engineer (Applied Machine Learning), General Intelligence, Jun 2019 - Aug 2020 (1y2m)

- employee #9, privately funded early stage startup
- tech lead Insight: predictive stock model evaluation, data quality and visualisation web UI
- UI lead CX2: carbon capture marketplace, evaluation metrics and map/satellite/Copernicus visualisation

Software Engineer (Applied Machine Learning), Google DeepMind, Jun 2013 - Oct 2018 (5y5m)

- employee #56, acquired by Google in Feb 2014
- product owner Leaderboard: ML research platform, evaluation metrics and game task visualisation
- product owner XObserver: real-time embedded web UI debugger for distributed ML environments
- data owner *Google Play & YouTube*: reinforcement learning (RL) research & roadmap; model train, test, deploy & evaluation production pipelines
- product owner Kitsee: fashion industry data quality, editorial, taxonomy & expert learning web UIs

Co-founder and Senior Software Engineer, Causata, Jun 2008 - Nov 2012 (4y6m)

- employee #2, funded by Accel, acquired by NICE Systems in 2013
- founder jsHub: analytics and ad serving framework; quality tools, microformats advocacy
- tech lead Insight: multivariate predictive modelling evaluation and data visualisation web UI

Senior Software Engineer, TouchClarity, Jan 2006 - Jun 2008 (2y6m)

- acquired by Omniture in 2007 to become Test&Target
- product owner Tagging: customer analytics and ad serving libraries (replacing Omniture and Offermatica's)
- developer customer ad inventory and evaluation web UIs

Software Developer, ClearlyBusiness, Aug 2002 - Nov 2005 (3y3m)

- acquired by Barclays 2004
- tech lead Barclays Business Manager: an engagement driven business lifecycle suite
- product owner ATG Dynamo user personalisation & Interwoven TeamSite CMS web content

Senior Web Engineer, **<kpe>**, Aug 1999 - Jul 2002 (2y11m)

- employee #4 in UK, a startup incubator that spectacularly imploded in the DotCom bubble
- tech lead E4: multimedia web content portal for Channel4
- UI lead Fotango: online photo management portal

## **EDUCATION**

BA (Single Honours) Design Management, UCA, Oct 1993 - Jun 1996

Specialism: corporate communications and technology Additional studies: 16mm stop motion animation

## SOME SKILLS

- o mastery of Web Technologies; advanced real-time front-end interactive big data visualisation UIs
- o experienced everything engineer, 1996-2024 (28 years); frontend, backend, cloud, kubernetes, web
- o co-founder or key contributor to multiple startup-to-acquisition successes
- applied machine learning at scale; big data cloud processing, analysis and quality evaluation; AI ethics,
  bias correction, explainability, reproducibility, auditing and privacy regulation
- feature driven agile end-to-end full stack software platform lifecycles; user, unit & integration testing, bug triage
- o api, library & framework design, training and developer avocation
- o brand experience, graphic and design management; UXE, UX & UI research, DX, pattern assessment
- o science communication; technology solution design, greenfield projects
- technological history & strategy adoption; reverse engineering and legacy migration; code archeology
- user requirements, story mapping, product development, roadmap design & delivery

## SOME TECHNOLOGIES

- many language and tool proficiencies, most >10,000 hours
- Golang, gRPC, Protobuffers, GraphQL, OpenAPI, WebSockets, SSE, REST, SQL
- HTML5, CSS, JS (ES3/6/7+), DHTML, AJAX, D3, Vega, React, Vue, Angular, ExtJS, Web Components (Lit, Svelte, Polymer, Perspective), Node.js, Webpack, Esbuild, Typescript, WASM, Mapbox, Backbone.js, Flash
- Python 2/3, (Jupyter, Pandas, Sci libs), Tensorflow, TensorBoard, TFX, Kubeflow, MLFlow, Django, DBT
- Snowflake, Snowpark, GCP, BigQuery, AppEngine, Docker, AWS, Athena, S3, Dremio, Apache Arrow
- Ruby, Ruby on Rails, Perl, PHP, Scheme
- o Rust, Unity, C#, Lua, C++
- o Java, Spring, Servlets, JSP, XSLT, Maven, Ant
- o Kustomize, Helm, Docker, npm, Yarn, Git, Nix, Homebrew, Mercurial, SVN, CVS

# SOME INTERESTS

- o reading; designing/playing computer & RPG games; theatre & comedy nights
- science fiction history and culture; utopias, dystopias, first contact scenarios
- scuba diving & travel; Galapagos, Central Americas, Mexico, Egypt, Iceland, shipwrecks, sharks & seals
- o children's education, theory of mind, mindfulness & meditation
- $\circ \quad \text{ playing rock songs on acoustic guitar badly} \\$