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MARK RIPLEY – CTO / FCTO

I'm an industry veteran; problem solver, curious and meticulous engineer, natural team builder and executive leader. My broad technical experience encompasses front-end, back-end and devops; whilst 20+ years' experience as CEO and CTO of companies big and small has seen me mentoring graduates, scaling and managing development teams, and presenting at executive and board level on technical and product strategy.

I've designed and developed software projects across many platforms: from financial trading bots and Ethereum Dapps, to low-latency interactive game streaming services, to developing and publishing mobile, console, PC, VR and AR games, to health and wellbeing apps. I try to keep abreast of the latest tech, with recent projects involving Unreal Engine 5, Godot, XR, Apple Vision Pro and Machine Learning.

As CTO I particularly enjoy setting up from scratch with start-ups – specifying/hiring roles & teams, keeping them happy and motivated, setting up procedures & best practice, whilst maintaining product focus and nurturing customer and partner relationships along the way.

Some highlights from 30+ years commercial experience include:

- award-winning XR titles, translated into learning tools for healthcare professionals, exploring LLM-based feedback and discussion sessions
- releasing one of the world's first location-based AR games
- employed my optimised Tensorflow ML to engage children in physical activity via iPad-based gaming
- an online pay-to-play games arcade for the Daily Mirror, featuring over 20 in-house titles
- 3D multiplayer games on NTL's lo-fi set top box cable network
- software for a clinical trial, disrupting how depression medication is prescribed

A broad range of satisfied clients include:

3	BBC	Channel 4	Channel 5	AmEx	BMW
Disney	EA	JCDecaux	Man Utd	Meta	Nokia
NTL	Samsung	Sky	Sony	Vodafone	Warner Bros

I'm a Remote Working advocate, working from my home studio, running remote teams since 1998. I am as comfortable with large clients as I am with start-ups, having set up and grown several successful companies of my own.

MANAGEMENT SKILLS

- Setting up, scaling, and managing technology companies with internal and external teams

- Technical project architecture, specification, resource planning, management and monitoring

- Due diligence - evaluating emerging and existing technologies, potential partners and development teams, feasibility of potential projects and business opportunities

- Advising and mentoring across strategy, management, code, tech art, design, test, and publishing

- C-level management and reporting; communicating business requirements to technical specifications, identifying technical risks and issues and translating back to business decisions

- Lead technical recruitment, scaling tech capability in line with the rest of the business, ensuring best practice when onboarding, implementing and maintaining standards and best practices

- Maintaining a culture where team members wish to stay, nurturing innovation, continuous learning, knowledge sharing and transparency

- Primary internal and external point of contact on all technical matters

- Excellent written and verbal communication skills

- Strong problem-solving and decision-making abilities

TECHNICAL SKILLS

- **Web:** JavaScript, React, Node.js, webGL, webAR, Canvas, Pixi

- **Cloud:** AWS, Google Cloud, Playfab(Azure), Docker, PHP, mySQL, LAMP, mongoDB

- **Game Engines:** Unity, Unreal, Godot

- **Languages**: C#, C++, C, Swift, Objective-C, Kotlin, Java - J2SE, J2ME, Applet, Servlet

- **Native**: iOS, Android, Unity Native Plugins - PC, Mac, iOS, Android, PS4, XB, Android

- **VR, MR & AR** - since 2016 – Apple Vision Pro, Meta Quest, HTC, Pico, Oculus

- **ML**: Via Local LLMs, nVidia Inception Programme, AWS; optimised Tensorflow pose recognition

- **Source Control:** Git LFS, Perforce, Mercurial, Subversion – admin, setup, maintenance

- **CI:** Jenkins, Team City, various build servers, Unity Cloud

- **Publishing:** Sony, Microsoft, Nintendo console platforms, Apple and Google mobile platforms, Steam and Epic PC platforms, Meta/AppLab

Mark Ripley Ltd   Jan 2022 – Present   **FCTO**

Today I work as a part-time / fractional CTO, typically for smaller studios who need experience and guidance, as well as someone on the board to give credibility to potential investors. Recently I've worked with:

Anagram: Jan 2023-Oct 2024
- Part-time CTO role, managing development and technical direction of award-winning XR title "Impulse", whilst porting existing VR title "Goliath" to emerging headsets. Liaising with Meta during development of new MR capabilities and Quest 3 headset, HTC with XRElite, Pico with Pico 4, Apple with Vision Pro. Exploring ML opportunities with nVidia, AWS and locally built LLMs.
- Assisting with grant/investment applications, recruiting tech staff, business and tech consultancy on migrating VR/XR titles to become training tools for health service professionals, technical feasibility, architecture and project planning.

Fish Bladder: Jul 2022-Present - Part-time CTO role, assisting with managing and developing initial MVP offering, assisting with attracting pre-seed / angel investment. Developed refined versions of my Tensorflow pose recognition software, delivered as Unity native code plugins for iOS and Android.

Graewolv: Dec 2022-Oct 2023 - Assisting in the setup of a new developer/publisher.

Twelve Oaks Software: Sep-Nov 2022 - Assisting the CEO to offload his CTO responsibilities.

Singer Studios: Apr-Sep 2022 - Part-time contract CTO role, focusing on technical setup and guidance, setting up Perforce and build servers, technical design documentation for Pirate Queen, technical pitch docs for PSVR2 and Pico versions, assisting with timescale and milestone planning.

MetaverseME   Jan-Jul 2022   **CTO**

- Full-time contract CTO role, responsible for specifying and overseeing all technical output from the business. Technical direction and mentoring of internal development teams (incl. interviewing & hiring), specifying and directing external contractors.
- Technical DD on new technologies, including AR geolocation, emotional analysis, various blockchain/NFT services, a deterministic multiplayer engine and facial feature capture.

Maze Theory   Oct 2020 – Dec 2021   **CTO**

- Responsible for hiring and scaling the internal development team, mentoring, guidance, and appraisals. Sourced external partners for co-development. Set budget alongside the FD. Specified business case for and set up internal QA team. Assisted with company long-term strategy and specified technical strategy, most notably the studio's move to Unreal game engine.
- Assisted technical setup as MT became a publisher - handling product submissions to Apple, Google, Steam, Epic, Sony, Microsoft and Nintendo. Handle relationships with key tech partners - those above plus Unity, Unreal, Autodesk, and Perforce. Perform external project technical due diligence - namely porting Phantom: Covert Ops to PSVR2.
- Specified company procedures and practices - staff onboarding, s/w and h/w setup, security. Involved with company strategy and specified technical strategy, most notably the studio's move to Unreal game engine.

Branching Narrative   **Dec 2018 - Present**   **Co-Founder**

- Developed and published a branching narrative interactive FMV engine.
- Released "Deathtrap Dungeon" using JavaScript / Pixi / Node.js across PC, Mac, Web, iOS, Android.

Mark Ripley Ltd   **Feb 2016 - Oct 2020**   **Founder**

- Targeting games, health tech, fintech and crypto.
- Provided software development consultancy, defining project timescales, budgets, resources and best-fit technology, building bespoke teams where required.

HeadcastLab   **May 2014 - Feb 2016**   **CTO**

- Oversaw architecture and development of the "Headcaster" mobile app.
- Recruited in-house permanent and external contract staff for app and server components.
- Planned project, completing at 60% of budget within 4 months.
- Specified the server architecture, to withstand spikes generated by celebrity users.
- Developed Android and iOS native plugins, reviewed and optimised Unity C# code.
- Applied for a patent for 'lip sync' technology.
- Handled product releases on Apple and Google app stores.

Effervescing Elephant   **Aug 2007 - May 2014**   **Founder**

- Specialising in Unity and JavaScript projects. Managed 10 freelance, 2 full time staff, all remotely.

Cheeky Group   **Nov 2001 - Jul 2007**   **CEO**

- J2ME mobile game specialists.
- Chosen by "3" alongside only two other companies to provide launch content.
- Designed and developed "StarMiner", embedded on numerous Vodafone UK handsets.

Friendly Giants   **Feb 1999 - Oct 2001**   **CEO**

- Founded world-leading developer of games and apps for web, iTV and mobile.
- 6 staff, generated £380K profit on £500K turnover in first six months, scaling to 30 staff.
- Valued at £36m as part of a proposed buyout by Stanley Leisure.
- Negotiated £1.2m investment for 25% stake from two other sources in two rounds, growing to 30 staff and further generation of in-house IP, which attracted over 15m visitors a month to friendlygiants.com.
- Partnered with Pace and NTL, Daily Mirror, EasyEverything, Channel 4 as well as numerous licensing deals for our IP including Littlewoods, BskyB, Turner, Motorola, BBC and ITV.
- Began proceedings towards IPO early 2002.

Previous Roles: **BBco** – Co-Founder & CTO, **Sportal** – Technical Director, **MDR Software** – Founder, **Protocol** - Software Architect, **Ocean** - Project Lead, **Visionware** - Snr Software Engineer.