



Andrew Fray

Leadership, Gameplay, AI, Automated Testing

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Profile

A veteran **developer**, with 20 years in the industry, shipping on multiple platforms from mobile to console, in multiple genres from puzzle to racing to action, and at scales ranging from 2 person teams to AAA.

An experienced **manager**, having built multiple shipping award-winning teams.

A respected **industry leader**, having developed the influential context steering technique, chaired the GDC automated testing roundtables since their inception in 2015, admin of the Automated Testing In Games discord, and with over 10 speaking passes to my name from various conferences.

An accomplished **community organiser**, having led the Birmingham Indies meetup and midland indies discord since 2016.

Experience

Roll7, Lead Programmer, 2020-2024 (Remote)

*Multiple prototypes, **Rollerdrome** (PS4/PS5/Xbox Series/PC)*

Joined to lead the Rollerdrome code team through vertical slice to launch. Pivotal in planning, direction and growth of the team. Introduced the team and studio to automated testing, helping us ship a successful title with remarkable stability, for such a complicated character controller.

Led a team through the transition from Unity to Unreal, building and executing a full training programme.

Led several prototype teams, in both unreal and unity, helping them change mindset after so long in production to answering design questions.

Spry Fox, Lead Programmer, 2013-2020 (Remote)

*Multiple prototypes, **Triple Town** (Mobile), **Alphabear** (Mobile), **Beartopia** (Daydream), **Steamworld Alliance** (PC), **Alphabear 2** (Mobile)*

My first indie job, initially taking stewardship of the already-shipped Triple Town. Launched several updates, before moving on to lead Alphabear development. Was also lead on Beartopia and an, unfortunately cancelled, Unreal-based Stadia MMO.

I learned a huge amount here about iteration, async collaboration (Spry Fox was mostly west-coast US), and shipping fast on a budget.

Sega Hardlight, Senior/Lead Programmer, 2011-2013

Multiple prototypes, **Sonic Dash** (Mobile)

The second engineer to join the studio. Worked on several smaller unreal prototypes before leading Sonic Dash, a unity project which went on to become the most successful game of my career by player count, with downloads in the nine figures.

Codemasters, Senior AI Programmer, 2008-2011

Operation Flashpoint: Dragon Rising (360/PS3/PC), **F1 2010 + 2011** (PS3/360/PC)

Transitioned to the Flashpoint AI team when Codemasters bought out Sega Racing Studio. When I moved to the F1 team to lead their AI efforts, I developed the context steering approach to racing AI, which has now become somewhat of a standard in the racing genre.

Sega Racing Studio, Programmer, 2007-2008

Sega Rally Revo (360/PS3/PC)

Joined to help ship Rally before moving on to their follow-up title, but unfortunately poor sales means the studio was sold to Codemasters.

Frontier Developments, Programmer, 2004-2007

Rollercoaster Tycoon 3 + Expansions (PC), **Thrillville 1+2** (PS2/Xbox/PSP/PC)

I learned a lot at Frontier about console development, shipping and working with a large team.

Bristol University, 2000-2003

Computer Science BSc(Hons)

Speaking and Publications

GDC, 2025, Develop 2025: **Productive And Pragmatic Prototype Programming**

GDC, Annual since 2015: **Chairing the Automated Testing Roundtables**

Develop Brighton 2022: **Dodging Bullets: Lightweight Automated Testing in Rollerdrone**

GDC 2019: **Twists and Turns: How the Speed Cubing Community Turned Rubik's Cube into a Competitive Genre**

Game AI Pro 2: a chapter on **Behaviour-Driven Steering at the Macro Scale**

GDC 2015: **Remote Working at Spry Fox**

GDC 2014: **Practical Unit Tests**

Develop Brighton 2013: **Moving A Team From Perforce To Git**

GDC 2013: **The Next Vector: Improvements in AI Steering Behaviours**

Skills

Unity: 10+ years

Unreal: 3 years

Custom C++ engines: 7 years

SVN, Perforce, Git, UVCS

Behaviour trees, steering systems, utility AI

Functional and unit testing, other test automation, quality engineering

Jenkins, AWS

Profiling and optimisation, both CPU and memory

Shipped on PC, console, mobile