



PRESS RELEASE

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Ubisoft Shares Insights on Machine Learning, Snowdrop Engine and More at GDC 2024

Company's top experts to share production learnings and game development advances in fields like audio, graphics, and VR

PARIS – March 5, 2024 – Today, Ubisoft revealed details of its presence at the Game Developers Conference (GDC), scheduled from March 18 to 22 at the Moscone Center, in San Francisco.

With more than 20 experts on site, Ubisoft will take a deep dive into some of its latest breakthroughs in game development, including the critically acclaimed Ubisoft Snowdrop engine, used in *Avatars: Frontiers of Pandora*, along with promising new machine learning techniques that have developers and player-facing applications.

Attendees will also get a chance to go behind-the-scenes of audio and rendering achievements in *Avatar: Frontiers of Pandora*, with presentations on sound design innovations and the ray-tracing pipeline in Snowdrop, as well as advanced graphics techniques powered by the engine.

Additionally, several talks will highlight Ubisoft's explorations in the field of machine learning and AI, such as a novel real-time rendering technique that reduces memory requirements thanks to neural material compression, and a dedicated presentation on building machine learning bots simulating human players in games. The latter will demonstrate their potential in enhancing player experiences, particularly for onboarding in multiplayer games, and how they can help play a crucial role in Quality Control testing across expansive open-world titles.

Ubisoft experts will also share their insights working on a variety of other key topics, from UX to narrative and game design, with examples from titles like *Tom Clancy's Rainbow Six Siege*, *Assassin's Creed Mirage*, *Assassin's Creed Nexus VR*, and *Prince of Persia: The Lost Crown*.

"We're looking forward to GDC 2024, where we'll share some of the exciting projects we have been working on with the rest of the industry. We believe these breakthroughs have the potential to push boundaries for both developers and players and pave the way for the future of entertainment," said Guillemette Picard, SVP Production Technology. *"We're excited to engage with the community, share our insights, and draw inspiration from the wealth of talent at the conference."*

Discover the full list of Ubisoft talks below, and check out the [GDC website](#) for more details on the presentations.

MONDAY, MARCH 18

9:30 am – 10:30 am PT

Advanced Graphics Summit: Introduction & DX12 Memory Management in Snowdrop on PC, Gauthier Viau (Graphics Programmer, Ubisoft Massive)

9:30 am – 10:30 am PT

Game Narrative Summit: The Playable Series: Writing Seasonal Narratives for Live Games, Valentina Tamer (Senior Narrative Designer, Ubisoft Paris Mobile)

9:30 am – 10:30 am PT

Machine Learning Summit: Introduction & Real-Time Neural Textures for Materials Compression, Antoine Houdard, Georges Nader (Research and Development Scientists, Ubisoft Bordeaux), and Olivier Pomarez (Director of Development, Ubisoft La Forge)

10:50 am – 11:50 am PT

Advanced Graphics Summit: Raytracing in Snowdrop: An Optimized Lighting Pipeline for Consoles, Quentin Kuenlin (Senior Rendering Programmer, Ubisoft Massive)

10:50 am – 11:50 am PT

UX Summit: Difficult Games by Data and Design, Lanie Dixon (Director of Insights, Ubisoft Montréal), Sebastian Long (Managing Director, Player Research)

5:30 pm – 6:30 pm PT

Advanced Graphics Summit: All You Can Ask!, Gauthier Viau (Graphics Programmer, Ubisoft Massive), Quentin Kuenlin (Senior Rendering Programmer, Ubisoft Massive)

5:30 pm – 6:30 pm PT

Machine Learning Summit: All You Can Ask! (Day 1), Olivier Pomarez (Director of Development, Ubisoft La Forge), Antoine Houdard and Georges Nader (Research and Development Scientists, Ubisoft Bordeaux)

TUESDAY, MARCH 19

10:00 am – 6:00 pm PT

Production Workshop: An In-Depth Guide to Solving Tough, Real World Production Problems, Patrick Redding (Creative Director, Ubisoft Montréal)

2:10 pm – 2:40 pm PT

Machine Learning Summit: Taming the Beast: Leveraging Machine Learning to Curb the Cost of Continuous Integration, Sarra Habchi (R&D Scientist, Ubisoft Montréal)

4:10 pm – 5:10 pm PT

Technical Artist Summit: Using Generative AI as a Tool for Tech Artists, Daniel Ocean (Associate TechArt Director, Ubisoft San Francisco)

5:30 pm – 6:30 pm PT

AI Summit: Building ML Bots at Ubisoft la Forge: From Research to Production, Gabriel Robert (Lead R&D Developer, Ubisoft Montréal)

5:40 pm – 6:40 pm PT

Machine Learning Summit: Panel: All You Can Ask! (Day 2), Sarra Habchi (R&D Scientist, Ubisoft Montréal)

WEDNESDAY, MARCH 20

10:30 am – 11:30 am PT

High Performance Rendering in Snowdrop Using AMD FidelityFX Super Resolution 3 (FSR 3) (Presented by AMD), Hampus Siverson (Associate Lead Engine Programmer, Ubisoft Massive)

11:30 am – 12:00 pm PT

Learnings From Working With Voice Actors Remotely, Adam Ritchie (Senior Voice Designer, Ubisoft Massive)

2:00 pm – 3:00 pm PT

Making Assassin's Creed Nexus VR Comfortable and Accessible, Olivier Palmieri (Game Director, Ubisoft Montréal)

5:00 pm – 6:00 pm PT

Obstacle Traversal in the Organic World of Pandora, Joel Nillson (Senior Gameplay Programmer, Ubisoft Massive)

THURSDAY, MARCH 21

11:30 am – 12:30 pm PT

Everything Is Connected – Ambient Sound in Avatar: Frontiers of Pandora, David Osternacher (Lead Audio Designer, Ubisoft Massive), Alex Riviere (Audio Director, Ubisoft Massive)

11:30 am – 12:30 pm PT

Teaching Complex Games: Onboarding Redesign for Rainbow Six Siege, Marc Ballart Germà (UX Designer, Ubisoft Barcelona)

5:30 pm – 6:30 pm PT

Ray Tracing in Snowdrop: Scene Representation and Custom BVH, Oleksandr Koshlo (Render Architect, Ubisoft Massive)

FRIDAY, MARCH 22

10:00 am – 11:00 am PT

Between Legacy and Modernity: Creating an Homage Game to the 15-Year-Old Assassin’s Creed Franchise, Fabian Salomon (Lead Producer, Ubisoft Bordeaux), Stéphane Boudon (Creative Director, Ubisoft Bordeaux)

10:00 am – 11:00 am PT

The Audio of XDefiant, Nicholas Bonardi (Audio Director, Ubisoft San Francisco), Brian DiDomenico (Lead Audio Designer, Ubisoft San Francisco)

10:00 am – 11:00 am PT

Upgrading the Snowdrop Engine for the Massive World of Avatar: Frontiers of Pandora, Joshua Simmons (Senior Programmer, Ubisoft Massive)

10:00 am – 11:00 am PT

Finding Space for Sound: Acoustics in Avatar: Frontiers of Pandora, Robert Bantin (Snowdrop Audio Architect, Ubisoft Massive)

For more information, please visit www.ubisoft.com.

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About Ubisoft

Ubisoft is a creator of worlds, committed to enriching players’ lives with original and memorable entertainment experiences. Ubisoft’s global teams create and develop a deep and diverse portfolio of games, featuring brands such as Assassin’s Creed®, Brawlhalla®, For Honor®, Far Cry®, Tom Clancy’s Ghost Recon®, Just Dance®, Rabbids®, Tom Clancy’s Rainbow Six®, The Crew® and Tom Clancy’s The Division®. Through Ubisoft Connect, players can enjoy an ecosystem of services to enhance their gaming experience, get rewards and connect with friends across platforms. With Ubisoft+, the subscription service, they can access a growing catalog of more than 100 Ubisoft games and DLC. For the 2022–23 fiscal year, Ubisoft generated net bookings of €1.74 billion. To learn more, please visit: www.ubisoftgroup.com.

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