Research and Development Scientist

Montreal - Full-time - 744000088159877

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Ubisoft La forge is looking to explore the application of Implicit representation latest progress into Character & Animation. This position is at the intersection of rendering techniques, new representations for the goal of exploring new way to create never seen before character in games.

About La Forge

La Forge bridges academia and video game production, bringing together scholars and industry experts to facilitate technical prototyping based on the latest academic progress. Together, we explore subjects such as rendering, animation, AI, audio, and physics to tackle some of the biggest challenges in art and tech in gaming. Dedicated to innovation, we aim to accelerate research and development through prototyping to help content creators build increasingly believable worlds and better understand our players.

What you will do:

• Define and develop our research topics within your area of expertise:

Develop novel algorithms for 4D avatar reconstruction from light stage data.

Investigate neural implicit representations (e.g., NeRF, Gaussian splats) for dynamic human modeling.

Develop generative models that scale avatar creation beyond physical capture.

- Collaborate with other La Forge team members to develop proof-of-concept prototypes.
- Communicate progress within and outside Ubisoft by publishing papers, presenting at conferences, etc.
- Oversee and guide graduate students.
- Participate in recruitment to assess candidates for internships and full-time positions.
- Stay up to date on the latest academic advances & industry trends within your area of specialization.

What you bring

- A PhD in Computer Vision, Graphics, Machine Learning or a related technical field
- Experience with generative models (diffusion models, flow matching...), neural implicit

representations (Gaussian Splats, Neural Radiance Fields), neural and physically based rendering, and volumetric representations.

- A background in applied or basic research (in industry or academia) + the ability to lead research through standard experimental methodologies
- Proficiency in Python and deep learning frameworks (e.g., PyTorch).
- A highly collaborative spirit + excellent communication, interpersonal, and presentation skills
- Curiosity, critical thinking, and resourcefulness (you'll have access to data, game engines, and world-class experts)
- Contributions to public research (e.g. published papers in relevant venues like NeurIPS, ICML, ACL, SIGGRAPH, or GDC)
- Motivation to find solutions to real world problems related to the video game industry
- Familiarity with photogrammetry, light stage capture, relighting techniques, OLAT (One Light at A Time) is a plus.

About us

Ubisoft is a global leader in gaming with teams across the world creating original and memorable gaming experiences, from Assassin's Creed, Rainbow Six to Just Dance and more. We believe diverse perspectives help both players and teams thrive. If you're passionate about innovation and pushing entertainment boundaries, join our journey and help us create the unknown!

we embrace a hybrid work model helping you stay connected with your team and aligned with business priorities, while giving you the opportunity to maintain your work-life balance. Note, that some roles are fully office-based and are not eligible for hybrid work.