Wenhao Li

vincentliwenhao@gmail.com 514-677-8804 Portfolio

Application | Unreal • Unity • Anvil • Snowdrop • Maya • Zbrush • Marmoset • Vray • Arnold • Mari • Jira Photoshop • Marvelous Designer • Stable Diffusion • Keyshot • Substance Painter/Designer • Perforce

Programming | HLSL • Python(pyQt) • Java • JavaScript • C# • C++ • PHP • Html • CSS • Node

Skill | Shader • Pipeline & Tool development • Asset Validation • Automation • Workflow Optimization • Prototyping & Benchmark • Technical Documentation • Data Integration • Budget Management • PCG

WORK EXPERIENCE

Senior Technical Artist [*Assassin Creed* - Ubisoft, Montreal, QC] June 2025 - Present

- ***D***evelop, integrate, and optimize complex material systems and production shaders for worlds, biomes, object banks and characters; balancing visual fidelity, shader complexity, memory usage, and rendering performance while ensuring visual quality and technical stability throughout the production cycle.
- ***C***ontribute to the technical direction of the Character team, driving character customization shader development, supporting technical implementation, and helping improve character production workflows.
- ***P***rototype custom post-processing effects and rendering features, evaluating technical feasibility and performance through iterative development, profiling, and benchmarking.
- ***P***erform GPU profiling and performance analysis across PlayStation 5 and Xbox platforms using PIX and Razor GPU Profiler. Identify GPU bottlenecks, investigate frame-time spikes and GPU utilization, and implement targeted rendering optimizations in collaboration with rendering engineers and art teams.
- ***C***ollaborate with rendering engineers, environment artists, and character teams to troubleshoot complex visual issues, improve rendering workflows, and maintain platform performance budgets.
- ***P***rovide technical guidance and support to artists, authoring detailed documentation and best-practice guidelines to improve shader adoption, consistency, and overall production efficiency

Senior Technical Artist [*Far Cry* - Ubisoft, Montreal, QC] April 2023 - June 2025

- *W*ork in Core Tech team, Collaborate with 3D/engine teams closely to develop and enhance tools/pipelines for character production using the Snowdrop engine for *Far Cry* Brand series.

- *S*upport the AD and DT in choices for developing graphic features based on technical and artistic expertise; Produced prototypes and benchmarks to ensure assets meet technical specification.

- *D*eveloped Character Validation Tool in python to help AD, animators, artists validate animated asset integrity under various lighting, environmental conditions,customized camera and sequence.

- *I*mplemented injuries system in shaders to visually represent character states in game (Bleed, Burnt, Poison,Shocked etc.) to enhance game realism; Optimized shaders computation for performance.

- ***I***mplement Dynamic wrinkle system in shader by HLSL, which enables compressed and extended tendon deformation dynamically depending on hand pose in real-time game.

- *I*mplemented features: cloth/hair wind simulation, gear coverage occluder, asset color variation etc.

- ***E***nhanced Maya tools to streamline artist workflows, improve team efficiency by automating tasks.
- ***A***uthored comprehensive technical documentation to support team knowledge and onboarding. processes; Coach and support members of the character team to use the tools and methods well.
- ***E***nsure that graphic bugs are corrected according to priorities; Act as a resource person to help character artists find solutions, and bridge members together to achieve certain topics.
- ***P***ropose best possible methods to improve and facilitate graphic work and share best practices.

Technical Artist [*Roller Champion(Multiple Player)* - Ubisoft, Montreal, QC] Oct 2021 - Mar 2023

- ***E***stablished pipeline in *Roller Champion* and benchmark customized assets, character part systems with customized shaders; Integrate, debug, review and optimize/fix character creation elements.
- ***P***erformed Technical validation over 200 monetization assets during four game seasons.
- ***C***oached in-house/outsource artists in general to fit in workflow and pipeline;
- ***C***ollaborated with artists for perfect balance between aesthetic quality and technical functionality.
- ***I***nvestigated, developed and implemented new techniques to place character teams at the forefront of the video game industry and set new efficient standards for optimization.

Technical Artist [Curioson Immersive Inc., Montreal, QC] Jan 2020 — Aug 2021

- ***D***eveloped VR education game project in Unity, responsible for environment assets and character modeling,texturing; Created original mechanical parts and construction in different styles.
- ***P***rototyped prefab function such as projector system, and interactable assets with blendshapes.
- ***D***esigned shaders within Unity, overcoming technical restrictions to achieve desired visual styles.

3D Character Artist [The Star CG Company, Montreal, QC] June 2018 — Dec 2019

- ***M***odeled (high and low poly), sculpted, topologized and textured 3D characters from concept art and models included architecture, interior and natural environment with Zbrush and Maya
- ***G***enerated high quality graphic maps for texture in Mari and substance painter with procedural technique, rendered in Unreal / Arnold, high aptitude for attention to details
- ***A***ccomplished over 150 3D assets used for video game with standard pipeline and PBR techniques, and implemented Body and Facial blendshape for various creation

EDUCATION

Bachelor of Computer Science-Computer Game
Concordia University, Montréal QC
Sep 2016 — April 2021

3D Advanced CG Character
TheStar College, Montreal QC
June 2018 — Dec 2019

3D Character Design
YCFG College, China
Sep 2020 — April 2021

EXTRACURRICULARACTIVITIES/AWARDS

Media president / Lead Graphic Designer Concordia Chinese Scholar Association Jun 2017- Oct 2019

Ubisoft GCO Act 1 & 2 Game Certificate Dec 2020 May 2021 | **First Aid Training Certificate** Aug 2024