Aarav Mathur Junior Technical Artist

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PROFILE SUMMARY

- **Junior Technical Artist** with **3 years** on **live Unity mobile games**, working between the 3D art team and client engineers on **shaders, rigs and asset budgets** for iOS and Android.
- Builds in **Maya**, **Blender** and **Substance 3D Painter**, writes **Shader Graph** and **HLSL** materials in **Unity**, and scripts tools in **Python** and **C#**.
- Strongest in **mobile shader cost**, **animation retargeting** and **texture memory**, after 2 years of adding new creatures to a game that still has to run on older Android phones.
- Works with **character artists**, **animators**, **client engineers** and **QA** in weekly content reviews, and turns device test results into fixes the artists can make on their own.
- Wrote the team's **Unity import checklist** and helped **2 co-op students** set up their first characters in the engine.

TECHNICAL SKILLS

Scripting & Shader Languages:	Python, C#, HLSL, MEL
DCC & Texturing Tools:	Maya, Blender, Substance 3D Painter, Photoshop
Game Engines & Editors:	Unity (URP), Unity Editor scripting, Unreal Engine 5 (personal projects)
Materials & Shading:	Shader Graph, PBR, mobile lit shaders, packed texture masks, texture atlases
VFX & Procedural Tools:	Unity Particle System, flipbooks, Houdini with SideFX Labs (learning)
Rigging & Animation Tools:	Maya rigging, skinning, Humanoid and Generic retargeting, blend shapes
Pipeline, Profiling & Version Control:	Unity Profiler, Frame Debugger, RenderDoc, Git LFS, Jira

EDUCATION

OCAD University — **Bachelor of Design (B.Des.) in Digital Futures** — Toronto, ON · Sep 2019 to Apr 2023

WORK EXPERIENCE

Ludia — **Junior Technical Artist** — Montreal, QC · Jul 2023 to Present

- Rewrote the creature skin shaders for Jurassic World Alive in **Shader Graph** with packed masks and one less texture sample, cutting fragment shader cost in battle scenes by **35%** on older Android phones.
- Built a **Python** retargeting setup in Maya that maps new creature skeletons onto shared animation sets, cutting rig and animation setup per creature from 5 days to **2 days**.
- Agreed texture size and polycount limits per creature with the art lead, then added a Unity import check for them, which kept texture memory under **600 MB** on 3 GB devices.
- Made **14** attack and evolution effects with the Unity Particle System and flipbook textures, keeping each one under the team's overdraw limit in Frame Debugger captures.
- Wrote a **C#** editor tool that sets up prefabs, LOD groups and materials for each new creature in one click, saving character artists about **3 hours** per release.

Drinkbox Studios — **Technical Art Intern** — Toronto, ON · May 2022 to Aug 2022

- Wrote a **Python** script that turns layered Photoshop files into sprite sheets with the studio's naming rules, cutting export time per character from 40 minutes to **5 minutes**.
- Prototyped a **Houdini** setup that rendered rock and plant variations to sprites for background artists, producing **60** variants from 8 hand-made shapes.
- Wrote a **12-page** guide to the art export scripts and ran 2 lunch sessions, so artists could fix their own export errors without waiting for the tools programmer.