AKHILESH VIJAYKUMAR
Technical Artist
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Experience

Department Technical Director January 2022 - Present
DreamWorks Animation L.L.C *Glendale, CA*
- Developing and maintaining tools for Character Effects workflows

Technical Artist Intern May 2021 - November 2021
Electronic Arts Inc. *Orlando, FL*
- Developing procedural tools to simplify and speed-up Body workflows for Character artists
- Scripting in the Frostbite engine using Python

Graduate Teaching Assistant August 2019 - May 2021
Texas A&M University *College Station, TX*
- Teaching and grading assignments on **Object-Oriented Programming Concepts in C++ and OpenGL**
- Developed the **TxGRAPH'2021 Conference** website using **HTML5,CSS3 and jQuery**
- Grading assignments for **The Digital Image** and **Image Synthesis**

Technical Skills

Languages: Python, MEL, C++, C#, C, Java, SQL, GLSL/HLSL
Web Technologies: HTML5, CSS3, PHP, JavaScript, AJAX, jQuery, TypeScript
Softwares/Libraries: OpenGL, Tensorflow, PyTorch, Maya, Houdini, UE4, Photoshop, AfterEffects, Unity, Substance Painter
Certification: **NPTEL Online ELITE Certification** in **Introduction to Machine Learning** from **IIT Kharagpur**

Projects

Deep Learning for Houdini Spring '21
- Trained AI models to predict real-valued parameters from images and use them to build procedural 3D models of floorplans.

Houdini Game Jam Fall '20
Theme: Don't Panic
- Worked in a team of 2 to make a game in Unity.

Mesh Grouping Tool in Houdini Fall '20
- A simple interface to form the closest possible, non-intersecting group of meshes, with randomized orientations.

Computer Graphics Fall '20
Implemented Rendering concepts like:
- Anisotropic Filtering, Physically-Based BRDF, Path Tracing and Non-Photorealistic (Painterly) Rendering

Machine Learning and Deep Learning Spring '20 / Fall '20
Explored models like:
- Decision Trees, Perceptrons, Neural Networks and Ensmeble Networks
- Linear and Logistic Regression, PCA and Autoencoders, Recurrent Neural Networks and Residual Neural Networks (with Mixup training, Dropout and Cosine Learning Rate decay)

The Digital Image and Image Synthesis Fall '19 / Spring '20
Implemented 2D and 3D Computer Graphics concepts like:
- Anti-aliasing, Ray Casting, Texture mapping and Distributed Ray Tracing
- Convolution Filtering, Compositing, Dithering, Stitching, Carving and Local Illumination Shader

Animation Industry Course Summer '20
Theme: Photorealism
- Worked in a team of 5 to create a 30 second Animated short film in Maya.
- *Roles:* Project Management, Modeling, Texturing, FX and Lighting

3D Modeling and Animation Fall '19
Secret of the Quokka
- Worked in a team of 5 to create a 30 second Animated short film in Maya.
- *Roles:* Modeling , Blend Shapes , Animation and Lighting

Visual Storytelling Spring '21
- Developed a Web-based interface for creating single-panel Cartoon Comics from a variety of Caricatures.

Education

Texas A&M University College Station, TX
*Master of Science in Visualization (**GPA : 4.0**)* *August 2019 - Present*
R N Shetty Institute of Technology Bangalore, India
Bachelor of Engineering in Information Science *August 2015 - July 2019*