

AKHILESH VIJAYKUMAR

Technical Artist

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EXPERIENCE

Department Technical Director <i>DreamWorks Animation L.L.C</i> <ul style="list-style-type: none">Developing and maintaining tools for Character Effects workflows	January 2022 - Present Glendale, CA
Technical Artist Intern <i>Electronic Arts Inc.</i> <ul style="list-style-type: none">Developing procedural tools to simplify and speed-up Body workflows for Character artistsScripting in the Frostbite engine using Python	May 2021 - November 2021 Orlando, FL
Graduate Teaching Assistant <i>Texas A&M University</i> <ul style="list-style-type: none">Teaching and grading assignments on Object-Oriented Programming Concepts in C++ and OpenGLDeveloped the TxGRAPH'2021 Conference website using HTML5, CSS3 and jQueryGrading assignments for The Digital Image and Image Synthesis	August 2019 - May 2021 College Station, TX

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 <ul style="list-style-type: none">Trained AI models to predict real-valued parameters from images and use them to build procedural 3D models of floorplans.	Spring '21
Houdini Game Jam <i>Theme: Don't Panic</i> <ul style="list-style-type: none">Worked in a team of 2 to make a game in Unity.	Fall '20
Mesh Grouping Tool in Houdini <ul style="list-style-type: none">A simple interface to form the closest possible, non-intersecting group of meshes, with randomized orientations.	Fall '20
Computer Graphics <i>Implemented Rendering concepts like:</i> <ul style="list-style-type: none">Anisotropic Filtering, Physically-Based BRDF, Path Tracing and Non-Photorealistic (Painterly) Rendering	Fall '20
Machine Learning and Deep Learning <i>Explored models like:</i> <ul style="list-style-type: none">Decision Trees, Perceptrons, Neural Networks and Ensemble NetworksLinear and Logistic Regression, PCA and Autoencoders, Recurrent Neural Networks and Residual Neural Networks (with Mixup training, Dropout and Cosine Learning Rate decay)	Spring '20 / Fall '20
The Digital Image and Image Synthesis <i>Implemented 2D and 3D Computer Graphics concepts like:</i> <ul style="list-style-type: none">Anti-aliasing, Ray Casting, Texture mapping and Distributed Ray TracingConvolution Filtering, Compositing, Dithering, Stitching, Carving and Local Illumination Shader	Fall '19 / Spring '20
Animation Industry Course <i>Theme: Photorealism</i> <ul style="list-style-type: none">Worked in a team of 5 to create a 30 second Animated short film in Maya.Roles: Project Management, Modeling, Texturing, FX and Lighting	Summer '20
3D Modeling and Animation <i>Secret of the Quokka</i> <ul style="list-style-type: none">Worked in a team of 5 to create a 30 second Animated short film in Maya.Roles: Modeling, Blend Shapes, Animation and Lighting	Fall '19
Visual Storytelling <ul style="list-style-type: none">Developed a Web-based interface for creating single-panel Cartoon Comics from a variety of Caricatures.	Spring '21

EDUCATION

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