




# SAI NARAYAN NATARAJAN

Tools Programmer

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## TECHNICAL SKILLS

- **Specialization:** Analyzing workflows for art/content production and implementing solutions to improve output, efficiency and quality of life
- **Game Engines:** Unreal 4, Unity, Unreal 3 (UDK), multiple proprietary engines
- **Languages:** C++, C#, C, Blueprints (Visual scripting), Python, MaxScript, HLSL/GLSL/Node-based shaders
- **Art tools:** Houdini, Blender, 3D Studio Max, Substance Designer, Photoshop, Simplygon, xNormal

## PROFESSIONAL EXPERIENCE

**Senior Developer Support Engineer, SyncSketch**  
Unity Technologies, Bellevue

August 2023 – Present

- *SyncSketch* is a collaborative review tool used by VFX artists, game devs and film studios around the world
- Won “Most Technically Advanced Project” and “Most Creative Project” in the 2023 Machine Learning Hackweek, built a tool that utilized the SyncSketch and OpenAI Python APIs to provide GPT-powered summaries of a review, and DALL-E powered image previews using an in-painting workflow

**UI Tools Programmer, Shader Graph**  
Unity Technologies, Bellevue & Vancouver

Jan 2020 – May 2023

- *Shader Graph* is used to make node-based shaders by indie & AAA teams as part of the Unity Engine.
- Shipped the Internal Inspector, a GUI that enables the user to interact with the shader graph and nodes, released in the 2020.2 version of Unity. This reduced the number of clicks for interacting with nodes by 50%.
- Delivered Blackboard Categories, allowing users to group parameters in shader graphs for the 2021.2 release.
- Researched, planned and rolled out a performance testing pipeline/workflow for UI of the Shader Graph tool.

**Technical Artist, Forza Motorsport 7 (PC & Xbox One)**  
Turn 10 Studios, Redmond

Aug 2018 – Jan 2020

- *Forza Motorsport 7* is a simulation racing game in the proprietary ForzaTech engine for Xbox One and PC.
- Authored a C# & Python interop tool for 3D vehicle artists to bake out procedural detail textures for grunge, dirt, edge wear etc. directly from mesh data using Substance Designer and Substance Automation Toolkit.
- Upgraded studio-wide LOD tooling from Simplygon 5 to Simplygon 8, batch modified ~30,000 model assets.
- Worked on a “strike team” as VFX artist, to create a visual target for the next Turn 10 title, using Unreal 4.

**Tools Programmer and Technical Artist, Bebylon Battle Royale (VR)**  
Kite & Lightning, Remote work

Jan 2018 – May 2018

- *Bebylon Battle Royale* is a VR fighting game in Unreal 4 for PC and PS4.
- Created Python & C++ tools for animation rigs, retiming, curve extraction and data validation.
- Debugged UI, networking and engine issues in the Unreal codebase with > 2 million lines of code.

## EDUCATION

**Master of Science in Computer Science**  
DigiPen Institute of Technology, Redmond, Washington

May 2017

**Bachelor in Computer Science**  
SRM University, Chennai, India

May 2015