

MATT YAN

www.linkedin.com/in/mattyan/
www.matthewyan.com

WORK EXPERIENCE

Software Engineer, *World of Warcraft*, Blizzard Entertainment May 2017 - Current

- Architected and implemented a brand new character customization engine for scalar, SIMD, and GPU paths, increasing possible customization options by several orders of magnitude while reducing overall artist workload and improving runtime character generation throughput by 2x-3x.
- Collaborated with art/engineering to architect and implement a compute-based weather system, reducing the CPU overhead for weather by 80%.
- Actively maintain multiple legacy projects for the environment system, optimizing/improving features while maintaining functionality for 15+ years of content.
- Implemented an in-game GPU profiling system allowing both engineers and artists alike to easily diagnose high-level performance issues in client scenes.
- Worked with IHVs to optimize the graphics engine for their respective hardware.
- Maintained close relationships with artists and designers to help develop performant assets and raid encounters while maintaining WoW's art style.

Software Engineering Intern, *World of Warcraft*, Blizzard Entertainment Summer 2016

- Developed an approximation of atmospheric scattering for sunsets.
- Quickly adapted to working/bug fixing in several parts of the engine.
- Collaborated with engineers and artists to ensure that my projects were developed correctly and matched the art-style of *World of Warcraft*.

GAME CREDITS

World of Warcraft: Shadowlands, Blizzard Entertainment 2020

- Software engineer, engine

World of Warcraft: Battle for Azeroth, Blizzard Entertainment 2018

- Associate software engineer, engine

PROJECT EXPERIENCE

Graphics Engine Programmer, *Retrospect*, DigiPen 2015 – 2016

- Architected and implemented a 3D graphics engine with modern techniques such as:
 - Data-driven graphics pipeline that could be changed/modified on the fly.
 - Parallelized rendering system that frees computation time for the engine.
 - Supporting the Chromium Embedded Framework for off-screen UI-rendering, which allows programmers to easily design tool UIs in HTML for artists/designers.

Other project experience available at www.matthewyan.com

EDUCATION

DigiPen Institute of Technology, Redmond, WA Graduated Spring 2017

- Bachelor's of Science in Computer Science in Real-Time Interactive Simulation

SKILLS

TECHNICAL SKILLS

Graphics Engine Architecture
Shader Programming
Graphics Techniques
Object-Oriented Programming
Low-Level Optimizations
Performance Profiling
Calculus
2D/3D Linear Algebra
Algorithms

LANGUAGES

C/C++ (Proficient)
HLSL (Proficient)
Python (Familiar)
Java (Familiar)
C# (Familiar)

SOFTWARE

DirectX 11/12
DXR
Visual Studio
RenderDoc
Intel Vtune
Intel SSE Intrinsics
GCC/G++
Git
SVN
VirtualBox
SSH
Premake

PLATFORMS

Windows 10/8/7/XP
Linux
-Mint
-Raspian