Yixin He

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Education

Carnegie Mellon University, Pittsburgh, PA	Aug 2016 – May 2020

Bachelor of Computer Science & Fine Art, GPA: 3.60
Dean's List: Spring 2018, Fall 2018, Spring 2019

Work Experience

Microsoft	2019
Gaming Software Engineering Intern in PlayFab	Redmond, WA

+Developed the bulk action processor, allowing game developers to run actions on large segments of players
+Implemented CRUD APIs with C# and .NET Core, and developed unit and end-to-end tests using Moq
+Added functionality to have actions run at regular scheduled intervals by using Orleans with DynamoDB

Carnegie Mellon University Textiles Lab	2018
Research Assistant	Pittsburgh, PA

+Designed and implemented program to convert machine knitting instructions to 3D yarn path visualizations
+Coordinated with other researchers at Cornell to produce an output for physics-based simulation

Related Projects

Victo Ngai-ify	2019-2020
Capstone Project	Pittsburgh, PA

+Designed and implemented a series of stylization shaders for real-time rendering in games based on the art style of Victo Ngai, a contemporary illustrator, using C++ and OpenGL
+Added functionality to allow for art direction and fine tuning and created numerous example illustrations and an example game
+Presented work at the annual Undergraduate Research Symposium

Watercolor Stylization for Games	2019
Independent Study Project	Pittsburgh, PA

+Implemented a watercolor stylization shader for real-time rendering in games based on the research paper, "Art-Directed Watercolor Stylization of 3D Animations in Real-Time" using C++ and OpenGL
+Extended implementation to work with Unreal Engine
+Presented work at the annual Undergraduate Research Symposium

Scotty3D	2018
Computer Graphics Project	Pittsburgh, PA

+Programmed 3D graphics system in C++ for mesh editing, realistic path tracing, and dynamic animation
+Used BVH hierarchy to accelerate raytracing, added support for various materials and lighting conditions

Skills

Programming Languages		*Other*	
+C++	+Javascript	+Visual Studio	+Premiere
+C#	+Python	+OpenGL	+Unity
+C	+Git	+Photoshop	+Autodesk Maya