

JUSTIN OU YANG

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justinouyang.com

EXPERIENCE

Senior Unity Engineer

SandboxVR

03/2019 - Ongoing Singapore

- Developed real-time, server-authoritative virtual reality (VR) experiences, supporting 2-6 players simultaneously within a 6x5 meters play zone
- Implemented efficient data synchronization in gameplay systems to achieve <15ms network latency
- Built tools in Unity for designers to create customizable events which drives the core experience flow with minimal engineering assistance
- Mentored team members through technical code reviews and provided feedback to solutions

Software Engineer

Viacom

02/2017 - 03/2019 New York | Singapore

- Shipped experiences such as "Aeronaut" and "Transformers: Cade Junkyard"
- Prototyped augmented reality (AR) and VR experiences to complement marketing strategies of Viacom's products
- Built Unity editor tools for designers to visualize data changes for gathering immediate feedback, reducing time spent on testing
- Reduced memory allocations for experiences on mobile platform by 50% to reduce garbage collection frequency for increased performance
- Ported an unreleased VR experience from a PC platform, enabling it to run on mobile at 70 frames per second (FPS)
- Engaged in project planning and task distribution during scrum to meet projected goals

EDUCATION

Master of Entertainment Technology

Carnegie Mellon University

08/2015 - 12/2016 Pittsburgh | San Francisco

Bachelor of Computer Science (Honors)

National University of Singapore

08/2011 - 12/2014 Singapore

SKILLS

Languages
| C# | Java | C++ | Javascript |
| MySQL | PHP | CSS |

Software
| Unity | Unreal Engine 4 |
| Git | Perforce |

PROJECTS

Dragonslayers

03/2019 - 03/2020 SandboxVR

Multiplayer location-based VR experience with melee-combat gameplay mechanics.

- Implemented gameplay systems such as AI path finding and inverse kinematics (IK) reactions

SmashHit VR Badminton

10/2018 - 11/2018 ASICS (Freelance)

Sole developer on a VR badminton game where players pit their skills against an AI opponent.

- Simulated shuttle physics while predicting its destination for the AI to play against players

Aeronaut

12/2017 - 05/2018 Viacom

An interactive VR music experience of a music single with a full body volumetric capture of Billy Corgan.

- Awarded the Digital Craft Grand Prix at Cannes Lion 2018
- Implemented gameplay systems such as recording the actions of up to 30 past players to simulate social interactions offline

Transformers: Cade Junkyard

08/2017 - 12/2017 Viacom

An explosive sandbox experience to control Bumblebee in AR on iOS using Apple's ARKit.

- Reduced memory allocations and rendering draw calls to improve framerate from 15 to 30FPS
- Worked with artists to implement scalable user interfaces across different iPhones

FIND ME ONLINE

www.linkedin.com/in/justinouyang