JUSTIN OU YANG

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SUMMARY

A team player experienced with building optimized and scalable systems professionally for 5+ years, with a passion for creating tools to improve overall productivity of the team. Highly motivated software engineer focused on serving product goals and taking initiatives to streamline processes.

EXPERIENCE

Senior Client Engineer

IGG   📅 06/2020 - Ongoing   📍 Singapore

Mafia Warfare (iOS) - Puzzle Role-Playing Game (RPG)
- Designing scalable system architectures for gameplay systems and internal frameworks used in active projects
- Developing gameplay systems for mobile games using internal frameworks
- Maintaining and improving existing systems used for asset management, localization, patching, data processing, networking and UI
- Working closely with artists/designers to integrate UI, art assets, etc
- Created a continuous integration test framework for Android and iOS using Jenkins to ensure high build resilience and uptime
- Designed and developed a data driven and scalable RPG combat framework by working with multiple designers to combine dozens of building blocks to express complex behaviors
- Built a tool in C# to automatically generate boilerplate code based on configurable templates which sped up development time by 20%
- Optimized game performance by fixing bottlenecks from scripts, renderers and shaders, reducing draw calls from 300 to 100, resulting in increased framerates from 30fps to 60fps

Senior Unity Engineer

SandboxVR   📅 03/2019 - 04/2020   📍 Singapore

Dragonslayers (PC) - Melee Combat Virtual Reality (VR)
- Worked on real-time, server-authoritative VR experiences, supporting 2-6 players simultaneously within a local network
- Built data driven tools for designers to create interactive narrative experiences with minimal engineering support which reduced turnaround time by 30%
- Implemented melee-combat gameplay systems such as AI behaviours, pathfinding, flocking and inverse kinematics (IK) reactions
- Developed a tool which visualizes nodes in Unity used to generate and assign paths to flying AI agents who navigate through obstacles in 3D environments

Software Engineer

Viacom   📅 02/2017 - 03/2019   📍 New York | Singapore

Aeronaut (PC) - Interactive Music VR
Transformers: Cade Junkyard (iOS) - Sandbox Augmented Reality (AR)
The Melody of Dust (PC) - Interactive Music VR
- Shipped multiple AR and VR experiences on PC and mobile
- Implemented game systems such as AI, input controls and UI interactions
- Prototyped AR and VR experiences to explore ideas to complement Viacom's media products, completed over periods of 1 to 4 weeks
- Built Unity editor tools for designers to visualize data changes and gather immediate feedback, reducing time spent on testing by 50%
- Engaged in scrum planning and task distribution to meet projected goals

SKILLS

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

Background
| Unity 5.6 ~ 2021 | Unreal Engine 4 |
| Git | Perforce | Photoshop |

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

PROJECTS

ASICS VR Badminton

📅 10/2018 - 11/2018   📍 Singapore

Developed and designed a VR badminton game on the HTC Vive for ASICS's roadshow event
- Engineered data driven AI agents to update animations and behaviours easily on runtime
- Simulated predictive shuttle physics to control the positioning of an AI controlled player

ACHIEVEMENTS

Digital Craft Grand Prix at Cannes Lion 2018 for Aeronaut

Top prize for creating an interactive VR music experience surrounding a volumetric capture of Billy Corgan

LANGUAGES

English   Native ● ● ● ● ●

Chinese   Native ● ● ● ● ●