

EDUCATION

Carnegie Mellon University, Entertainment Technology Center (ETC)

2018 – 2020

- Master of Entertainment Technology
- Relevant Courses: Game Design, Computer Graphics, Computer Systems, Visual Storytelling (Teaching Assistant)

(Expected)

National University of Singapore

2014 – 2018

- Bachelor of Computing (B.Sc.), Second Upper Honors in Information Systems & Analytics
- Recipient of MOE Science & Technology (SM2) Scholarship for 5 years

SKILLS

Programming C++, Java, C#, C, SQL, JavaScript, Java EE, RESTful API, Hyperledger Fabric

Tools Unreal, Unity, Maya, Git, Perforce, Wwise, Premiere Pro, After Effects, Photoshop, Microsoft Office

Platforms HTC VIVE, Oculus, Meta II, ARKit, HoloLens, Gear VR

EXPERIENCE

Electronic Arts - Industrial Toys | Technical Designer Intern

May – Aug 2019 | Pasadena, CA

- Worked closely with other game designers to augment combat and weapon systems for an unannounced game
- Designed, pitched and prototyped a new game mode and 6 power-ups in Blueprint (UE4)
- Hosted weekly build review sessions and iterated design decisions based on playtesting feedback
- Developed an Unreal plugin in C++ as a logging tool to upload player data and screenshots to server for playtest analysis

Hiverlab | Gameplay Programmer Intern

May – July 2018 | Singapore

- Worked as a Unity engineer with two artists and one programmer in a small start-up team
- Designed and developed a VR experience for Singtel ([Future Work](#)), the largest telco in Singapore to promote 5G technology
- Developed The Great SkillsFuture Hunt AR app and released to both Google Play Store and App Store in a week

PROJECTS

Jam Session | CMU Student Pitch Project | Lead Programmer

Present

- Exploring rhythm game design by creating 10+ innovative rhythm game prototypes and analyzing playtesting data
- Developing and iterating on a technical framework in C# for future rhythm game developers and designers

VR Cuts & Transitions | CMU Student Pitch Project | Programmer & Co-producer

Spring 2019

- Developed and documented experimental cinematic cuts and transitions for VR games/immersive storytelling
- Designed and prototyped 12 interactive VR scene transitions in Unity triggered by player input
- Troubleshooted graphics issues such as single pass rendering for VR and reconstructing world coordinates
- Contributed to a multi-camera scene layout tool for blending effect in C# (open source on [GitHub](#))

Scotty3D Modeling Software | CMU CG Course Project | C++

Spring 2019

- Created a polygon-based mesh editor with geometry computation and manipulation
- Implemented a ray-tracing renderer with Monte Carlo methods and global illumination
- Developed an animator with inverse kinematics and physically-based simulation

Home-Bound | Global Game Jam | Programmer & Designer | C#

Feb 2019

- Developed a 2-player co-op platformer game with a team of 4 within 48 hours
- Designed and implemented a unique control scheme, 5 levels with tutorial and submitted to [Global Game Jam](#)

Building Virtual Worlds | CMU ETC | Programmer & Designer

Fall 2018

- Created 5 immersive worlds in Unity with different interdisciplinary teams of 5 in two-weeks cycles on VR/AR platforms
- Developed brainstorming, problem solving and rapid prototyping skills on given themes in a collaborative environment
- Featured projects:
 - [Babies on a Plane](#): an AR game where players do a hectic balancing act with a virtual plane in front of them
 - [Beat'em](#): a full-body tracking VR rhythm game where players punch and kick robots within a 360-degree arena

Artbook | NUS Blockchain Team Project | Programmer & UX Designer | Node.js

Spring 2018

- Designed a full stack blockchain solution for art trade industry with a team of 3 to leverage the pain points we identified
- Developed chain code with HyperLedger Fabric and the middleware with Node.js to integrate with 4 front-end portals