Chen Mi

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SUMMARY

Designed and established a text to 3D realtime anime movie generation tool using Unity In *TCL Research America*. A wide range of project experience on Unity engine, mobile game development, and VR applications. Strong background of computer science and programming skills in C#, Java, SQL. Knowledge of networking and graphic rendering.

EDUCATION

University of Utah, Salt Lake City, US   Aug. 2017 - May. 2019
Master of Entertainment Arts and Engineering, Game Engineering

Jiangxi Normal University, Nanchang, China   Sep. 2011 - May. 2015
Bachelor of Science & Honors, Software Engineering

TECHNICAL SKILLS

- *Programming Languages: C#,* Java, SQL, C++, HTML/CSS
- *Game Development: Unity, Unreal, Mobile Platform, Assets Pipeline Automation, Editor Extension, VR Hardware Integration, Networking, Graphics Rendering*

WORK EXPERIENCE

Software Engineer, *TCL Research America*   June. 2019 - Jan. 2021
Research Project:[IDEO-Editor](#) (unannounced project).
- Implement overall assets processing pipeline combined with hotfix solution on AssetBundle
- Built networking modules using RESTFUL API to handle HTTP requests and responses. Applied decorator pattern in wrapper layer for better simplicity and scalability.
- Supported art team with exploring ideas of clips blending, Final IK animation.
- Integrating with voice to facial animation service, personal avatar from a selfie feature.
- Managed the development team and built business cooperation with AI service providers.

Research Assistant, *Therapeutic Games & Apps Lab*   May. 2018 - May. 2019
- Built [**Veterans Advanced Surgical Safety System**](#) software suites based on MVVM Pattern.
- Implemented P2P connection by UNET for wireless screen sharing in the operation room.
- Establish the app system in Manager of Managers pattern in Unity.
- *Awards*: 2018 Nation Innovation Technology Prize in VA. 2019 Ensign College of Public Health Award at Bench to Bedside with $15,000.

Gameplay Engineer, *Beijing Boyhood Technology*   Aug. 2015 - May. 2017
Published: [***Pili Incredible***](#) (2016). Role-playing game in Unity. Apple Store Best seller(Taiwan).
Published: [***Era War***](#) (2018). MMOARPG mobile game in Unity.
- Built a MVC UI management module using NGUI.
- Designed an ORM module in client for datatable access. Convert excel sheets to binary files and generate related C# query scripts in one click.

- Established a client-server pathfinding synchronization solution for NavMesh for backend validation and calculation.
- Implemented game states management in the battle system using a finite state machine.
- Programmed dynamic flocking behavior for monsters and cut scenes.
- Integrate SDKs for in-app billing system, account system, user tracking on different platforms.
- Complete product lifecycle experience from prototype to online update and maintenance.
- Performance improving by reducing draw calls, dynamic occlusion, object pooling.

Researcher Engineer, *Jiangxi Creative Arts Entertainment Lab*   Oct. 2013 - May. 2017
- Implemented **Kinect Virtual Lab** gesture recognition system based on Dynamic Time Warping using Kinect and Unity.
- Awards: 2014 Best Original Non-Game,Unity Awards in the Greater China Region.
- VR museum projects on HTC Vive, zSpace. AR prototypes using Vuforia SDK.

PROJECTS

Realtime Render Engine
- Built a platform independent graphics renderer that supports DirectX and OpenGL.
- Implement render threads, render commands for performance optimization.
- Implement a material system, textures, lightings and transparency.

OpenFramework Game AI
- Includes implementations on behavioral simulation.
- includes A star pathfinding algorithm Visualization Editor.

Tinder-like News Android App
- Designed the Instagram News app based on Google Component Architectural MVVM Pattern
- Implemented the bottom bar & page navigation using JetPack navigation component
- Utilized 3rd party CardStackView to support swipe gestures for liking/disliking the news
- Built the Room Database with LiveData & ViewModel to support local cache and offline model
- Integrated Retrofit and LiveData to pull the latest data from a RESTFUL endpoint (newsapi.org)