# Yunlin Li

Mobile: 07900918268, Email: ling428lyl@gmail.com,

GitHub: <a href="mailto:ling428lyl">ling428lyl</a> (github.com), Portfolio Website: <a href="https://yunlinli-portfolio-website.netlify.app/">https://yunlinli-portfolio-website.netlify.app/</a>

# **SUMMARY**

A versatile and innovative designer and developer with expertise in Unity, Maya and XR technologies. Skilled in game mechanics design, 3D modelling & animation, procedural content generation and UI design. Demonstrated ability to bridge both artistic and technical aspects of game design, with an enthusiasm for crafting engaging and immersive game worlds, and an aptitude for problem-solving and multidisciplinary collaboration.

### **EDUCATION**

University of Bristol 09/2023-12/2024

Master of Science in Immersive Technologies (Virtual and Augmented Reality)

Core Modules: Virtual Environment Design, Immersive Games Design and Production, Immersive Interaction and Audio Design, Augmenting the Real World, etc.

Guangzhou University 09/2019-06/2023

Bachelor of Engineering in Network Engineering

Core Modules: Web Application Technology, Software Engineering, Database Principles, Data Structures, Object Oriented Programming (C++), Artificial Intelligence, etc.

#### **Technical Skills**

- ➤ Game Engine & Design Tools: Unity; Maya, RealityCapture, Procreate, Photoshop.
- ▶ Programming & Version Control Tools: C#, JavaScript, Python, C++; Git, SVN.

# PROJECT EXPERIENCE

VR Graffiti Stealth Game 05/2024-08/2024

- Designed game mechanics, narrative, and level structure, ensuring an immersive and cohesive experience.
- ➤ Developed VR hand animations, poses and trigger logics based on different interactions, implementing UI, spray can interactions and paint mechanic using VR techniques in Unity (C#).
- > Optimised real-time spray paint rendering and interaction, achieving fluid VR performance with particle effects.
- Modelled assets in Maya, and procedurally generated environment assets to create parallax effect, enhancing visual engagement while reducing storage requirements.
- Implemented AI behaviours with Behaviour Trees, enhancing NPC decision-making and game dynamics.

# AR Application of Children Story Book

02/2024-04/2024

Grade: 67 (Merit)

Grade: 88 (2:1)

- Designed the UI and developed the first scene of *The Gruffalo* story in Unity (C#) using AR techniques (e.g. tracking, raycast, light estimation, etc.).
- Produced a character via photogrammetry (RealityCapture) and animated it using Maya and Unity Mecanim.
- Maintained visual and narrative continuity, integrating seamlessly with other team members' scenes to ensure a cohesive storytelling experience.

### VR Zombie Survival Shooting Game

02/2024-04/2024

- Designed and developed the first-person game in Unity (C#) with teammates via GitLab for version control.
- > Implemented the interactive game tutorial and UI, guiding players through core mechanics while maintaining an intuitive user experience.
- Created dynamic VR hand animations, poses, and trigger logic for immersive interactions and engagement.

### **VR Symphonic Planets Interactive Experience**

02/2024-04/2024

- > Designed realistic materials, particle effects, and procedural terrain generation in Unity to dynamically reflect different elemental properties in the game.
- > Developed an interactive sound system by composing dynamic soundtracks, aligning musical elements with gameplay mechanics for an immersive audiovisual experience.

### Virtual Environment Design of a Tea Shop

- Created a realistic virtual tea shop in Maya, referencing real-world images taken in Bristol.
- Modelled detailed furniture, decorations and plants, applying textures and designing lighting of the environment.

# **Creative Programming for Digital Media & Mobile Apps**

06/2022-08/2022

Online Course Organised by Goldsmiths, University of London

- > Developed interactive audiovisual applications and physics-based games in Processing, integrating sound, graphics, and user interactions for creative digital experiences.
- > Implemented real-time physics simulations using JavaScript and the Box2D physics engine, enabling accurate object movement and realistic environmental effects.

# PROFESSIONAL EXPERIENCE

# **Agricultural Bank of China**

09/2022-10/2022

Front-end Developer (Internship)

- ➤ Defined the project requirements with product manager and collaborated with back-end developers to develop an E-commerce management system using Vue.js to the partner company customers, with SVN for version control.
- Designed static web pages with HTML and CSS and implemented front-end and back-end interactions using JavaScript for API integration, ensuring seamless data communication and system functionality.
- Conducted Value Stream Mapping (VSM) with end users to identify current inefficiencies and optimise workflows, improving system performance by 12% through iterative testing.
- Presented the final solution to the partner company and user base, receiving positive feedback for usability and performance improvements.

# Guangdong Planning and Designing Institute of Telecommunications Co., Ltd

07/2022-09/2022

Front-end Developer (Internship)

- Developed front-end pages (e.g. order and product management) in an agile environment (Scrum) using HTML, CSS, and JavaScript (Vue & React), adapting to project requirements and delivering within 3 weeks.
- Collaborated with UI designers and back-end developers to build data visualisation dashboards using ECharts, enabling real-time data analysis and enhancing business decision-making efficiency.

### Tencent Technology (Shenzhen) Co., Ltd

02/2022-03/2022

Algorithm Engineer (Part-time)

- Analysed large-scale data processing inefficiencies and identified optimisation opportunities to reduce query execution time and eliminate redundant calculations for the algorithm engineering team.
- ➤ Optimised computational efficiency based on data dependency relationships, achieving a ~33% reduction in execution time for big data workloads using Python (pandas).
- Abstracted optimisation problems into a multi-way tree structure and developed a node caching algorithm in C++, minimising redundant calculations and improving analytical tasks efficiency by 11-15%.

# **ADDITIONAL EXPERIENCE**

### Design of the Guangzhou University Postgraduate Admission Letter

03/2022-04/2022

Designed and created a postgraduate admission letter using Procreate and Photoshop, incorporating campus characteristics and local cultural elements into the envelope design.

### Colour 60-day Challenge Vol.8

03/2022-05/2022

> Completed a 60-day colour painting challenge using Procreate and Photoshop, exploring artistic styles, studying colour theory, and analysing works of renowned photographers and artists.

# **AWARDS & LANGUAGES**

Awards: Guangzhou University 3<sup>rd</sup> Prize Scholarship (2019-2020 & 2021-2022).

Language: English (Fluent); Cantonese & Mandarin (Native).