Yuwei Mao

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EDUCATION

Teachers College, Columbia University   New York,NY
Master of Arts in Design and Development of Digital Games   *Anticipated Graduation 12/2023*
C.Y. Li Endowed Scholarship

University of California, Santa Cruz (UCSC)   Santa Cruz, CA
Bachelor of Arts in Art and Design: Games and Playable Media   *09/2019-06/2022*
GPA 3.89/4

Shanghai Experimental Foreign Language School   Shanghai, CN
High School Diploma/A-Level Certificates (Computer Science, Math, Physics)   *08/2015-06/2019*

PROJECT EXPERIENCE

Columbia TC Dreams Immersive Technology And Metaverse-Based Education Project   New York, NY
Unity Developer/ Instructional Designer   *09/2022-*
Advisors: Professor. Joey Lee
- Designed and developed VR experiences for K-12 education using Unity Engine and instructional design principles
- Collaborated with subject matter experts and other stakeholders of Columbia University affiliated high schools to ensure that the VR materials were accurate and effective
- Tested and evaluated the VR materials to ensure that they met the desired learning outcomes and provided a seamless user experience

Columbia TC AAPI Trailblazers Educational Board Game Project   New York, NY
Game Designer   *09/2022-*
Advisors: Professor. Joey Lee
- Created rules, mechanics, and content for the game
- Tested the game to ensure that it is balanced and fun to play, and made any necessary adjustments to the rules or mechanics
- Conceptualized and developed characters, rules, settings, items, and stories to promote notable Asian-Pacific American people and events

UCSC AGPM/CMPM 17X Collective Game Project   Santa Cruz, CA
Programmer   *12/2021-06/2022*
Advisors: Professor. Nathan Altice, Tad Leckman, Kristen Gillette, and Elizabeth Swensen
- Oversaw the programming for the project
- Used Unity to design and develop an interactive story game, which allows players to delve into the story plot through time traveling by solving numerous puzzles of different kinds in a click-and-interact structural form

Carnegie Melon University & NeoScholar Game Design Algorithm Research Project   Online
Vice Leader   *05/2021-12/2021*
Advisor: Professor. Bill Nace
- Researched how to apply classic algorithms to game design
- Took charge of programming and experiments
- Used Python and Pygame to design an algorithm for generating randomized and natural-looking maps; published the paper "Procedural Game Map Generation Using Multi-leveled Cellular Automata"

UCSC AGPM/CMPM 120 2D Game Project   Santa Cruz, CA
Leader   *03/2021-06/2021*
Advisor: Professor Nathan Altice and Hadiseh Gooran
- Acted as lead for the sprite design and programming
- Researched team work plans and division of labor in game design

- Led the team to use Phaser 3 to make a rogue-like 2D action game, which generates monsters, items, and rooms randomly in order to provide players with a different experience in every game

UCSC LING 80K Constructed Language Invention Project   Santa Cruz, CA
Participate   *06/2020-07/2020*
Advisor: Professor. Pranav Anand
- Took the lead in inventing words
- Learned about and researched the history, culture, uses, and types of constructed languages
- Designed the grammar, vocabulary, and pronunciation of a newly constructed language Psychopompish
- Translated common English phrases into Psychopompish

Harvard Medical School Artificial Intelligence Research Project   Boston, MA
Participate   *08/2018-09/2018*
Advisor: Professor Wendy Xie
- Researched how to apply artificial intelligence to brain science
- Led programming, and experiments
- Used Python and TensorFlow to generate English handwriting in different styles

UNIVERSITY ENGAGEMENT EXPERIENCE

Columbia TC Game Research Lab   New York, NY
Lab Assistant   *09/2022-*
- Record check-in and check-out registers
- Assisted with experiments and research, including setting up equipment and materials, following protocols, and recording data
- Maintained the cleanliness and safety of the lab, including cleaning and organizing equipment, and ensuring that the lab environment was conducive to conducting experiments and research

Teachers College China Society, Columbia University   New York, NY
Member of the Public Relations and Student Communications Departments   *09/2022-*
- Choreographed tweets and promotional activities for the WeChat public page
- Cooperated with the Student Communication Department, responsible for planning and promoting student communication activities of the association

GAME DESIGN EXPERIENCE

Counterclockwise, *Programmer,* (Digital Game, Group)   *01/2022-06/2022*
- Used Unity to build an interactive story game on both Windows and Mac
- Achieved multiple languages including English and Chinese using Localization

Alex Lau, *Artist,* (Character Design, Solo)   *09/2021-12/2021*
- Sketched and colored using PhotoShop
- Used Blender to create a model based on the paintings; sculpted the delicate features such as the face; made UV mapping for texture and material; added bones and weight for running animation

Data Devourer, *Designer,* (Digital Game, Solo)   *08/2021-11/2021*
- Designed sprites and their animation using Aseprite
- Created sound effects using FL Studio and build-in VSTs
- Used GameMaker Studio 2 to integrate graphic design and sound effects and to facilitate the game working online and on Windows

The Donkey Dodger, *Designer, Artist*, (Party Game, Group)   *09/2021-12/2021*
- Gathered inspiration from Netflix's *Squid Games*
- Designed the rule book, cards, and other elements using PhotoShop and Illustrator

The Cursed Hero: The Way to Almighty Potion, *Programmer/Artist,* (Digital Game, Group)   *03/2021-06/2021*
- Developed characters and their animations, as well as tilemaps using Aseprite
- Used Phaser 3 and JavaScript to enable the game to be played online

Mount and Blade: Hegemony, *Designer,* (Card Strategy Game, Group)   *01/2021-03/2021*
- Set the rules of the game and ensured the balance of each card using the concept of the game system and MDA framework

- Used Photoshop and Illustrator to design the game tabletop and cards
- Playtested the game using Tabletop Simulator as the platform

PROFESSIONAL SKILLS

- **Gameplay:** Role-Playing Games: The Elder Scroll V, Borderlands Series, Pokemon Series, Diablo 3, Monster Hunter Series, Mount&Blade Series, Divinity: Original Sin 2; Frames Per Second (FPS) Games: Battlefield 1; Simulation Games: Cities: Skylines, Animal Crossing Series
- **Game Engine:** Unity, GameMaker, Godot, Phaser
- **Programming Language:** Python, JavaScript, Java, C, Pascal, VB
- **Audio:** FL Studio, Ableton Live, Reaper
- **Graphic Design:** PhotoShop, Illustrator, Aseprite
- **3D Modeling:** Blender, Maya
- **Human Language:** English, Chinese (Mandarin, Wu)