Yuting Han

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Education

Technical university of Denmark 2021.09 – 2024.09
Master of Science in Human-Centered AI *Copenhagen, Denmark*

- **Relevant Coursework:** Game Development, AI, Computer Graphics Lab, Data Analysis, UX Design

Engineering University of Harbin 2016.09 – 2020.09
Bachelor of Engineering in Software Engineering (GPA: Top 10%) *Harbin, China*

- **Thesis:** Campus management mobile application implemented using Vue.JS and RESTful API

Technical Skills

Languages: Proficient in **C# (3 years)** and **C++ (3 years)** with a focus on game development, complemented by **Python (4 years)** and **JavaScript (4 years)** for scripting and AI implementation.
Engines & Tools: Proficient in utilizing *Unity*, *Git*, and *Visual Studio* for streamlined software development. Familiarity with *Blender* and *Figma* for visual creation.
Interests: Passionate about Interaction Tech & AI, avid reader, and enthusiast of social video games, photography, painting, and badminton.

Projects

OnGoing Master Thesis : Data-Driven and Physics-Based Animation of 3D Characters | *Unity*, *C#*, *PyTorch*

- Applied Motion Matching and Physics-Based simulation techniques in Unity to optimize character animation.
- Conducted thorough performance evaluations under varied scenarios, contributing insights to the fields of interactive animation and 3D environments.
- Completed an impactful thesis, advancing player's experiences through innovative animation integration in Unity.

Action Game "The Old Ones" [Released] | *Unity*, *C#* | https://dadiu.itch.io/the-old-ones

- Implemented procedural animation for quadruped minions using Animation Rigging.
- Designed and integrated an intelligent enemy AI and Navigation system.
- Developed a modular player combat system, offering users greater flexibility and diversity in their gameplay options, contributing to positive player feedback.

Puzzle Game "LOTR Inspired Maze Dungeon" | *Unity*, *C#*, *GLSL* | https://yutinghan.itch.io/lotr-inspired-maze-game

- Designed and Implemented adaptive maze level generation using the Depth First Search algorithm, Utilized Perlin Noise for procedural terrain generation and Leveraged Poisson Disc Sampling for random object spawning, providing players with diverse and captivating in-game landscapes.
- Employed advanced computer graphics techniques, including procedural synthesis, sampling, and noise, along with physics-based materials to craft immersive Unity Scenes.

Visual Interaction Game "Giants' Rest" | *Unity*, *C#* | https://yutinghan.itch.io/mini-game-prototype

- Implemented procedural terrain generation using the Marching Cubes algorithm.
- Developed a run-time terraforming feature, empowering players to shape and interact with the game environment in real-time, enhancing immersion.
- Created customized editor tools for level designers, streamlining the game development process and fostering efficient collaboration within the team.

Deep Learning in Computer Vision Research | *Python*, *Pytorch*

- Assisted the team in completing various computer vision tasks including image classification, object detection, semantic segmentation, and image generation by designing and training convolutional neural network (CNN) and generative adversarial network (GAN) models.
- Achieved successful results in outdoor garbage classification, human image synthesis, and skin disease recognition tasks.

Social Graphs and Interactions of Simpson Family | *Python* | https://rainstophan.github.io

- Investigated similarities between "The Simpsons" characters and real-life individuals, assessing the show's portrayal of American life.
- Applied network theory to model and analyze social relations within the show's universe, revealing insights into its social complexities and employing advanced data analysis techniques to uncover nuanced aspects of the show.

Experience

Denmark National Academy of Digital Interactive Entertainment 2022.08 – 2022.12

Game programmer *Copenhagen, Denmark*

- Collaborated with a diverse team of 18 professionals to implement versatile gameplay mechanics in games.
- Developed two mini-games and contributed to the release of the action game titled ”The Old Ones”, showcasing creativity and strong problem-solving skills.
- Ensured the game’s polish, bug-free performance, and optimization for an exceptional player experience.

Walnut Coding EDTech 2020.12 – 2021.08

Coding Teacher & Project Manager *Wuhan, China*

- Orchestrated academic affairs and managed the teaching team for children’s coding education.
- Designed interactive Scratch and Python programming courses for online platforms.
- Conducted data analysis for course updates and sales strategies, improved user retention rate by 13% and conversion rate by 8%.
- Provided regular progress updates to parents, ensuring transparency and collaboration.

Volunteering

Women in Games 2023.10 – Present

Personal Ambassador *Copenhagen, Denmark*

- Advocated for gender equality and empowered underrepresented individuals in the gaming community.
- Organized and participated in events, workshops, and panels to foster awareness and dialogue on inclusivity.

CPH:DOX Festival 2022.03 – Present

Virtual Reality Experience Host *Copenhagen, Denmark*

- Assisted with the tech setup and experience guidance for virtual reality projects during the exhibition.
- Provided visitors with a seamless and engaging virtual reality experience and troubleshooting technical issues as needed.