Charlie Agriogianis

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CA

Gameplay Programmer | Technical Designer | Game Designer

About Me

Creating the novel stories new technology enables

Education

Carnegie Mellon University, Entertainment Technology Center (ETC) – Masters of Entertainment Technology, May 2024

University of Illinois at Urbana-Champaign, College of Engineering (UIUC) – B.S. Computer Science, May 2022

Skills

Engines

Unity, Unreal

Platforms

PC, Quest 3 (VR and AR), Vive Trackers, WebGL, Eye Tracking, Android, Custom Controllers, Directional Audio

Languages

C#, C++, C, Python, Java, JavaScript, HTML, CSS

Other Skills

Dialogue and Prose Writing

Generative AI Dialogue Training, Prompt Engineering

Custom Shaders

FMod, Sound Effects, Mixing

Technical Writing

American Sign Language

Hobbies

TTRPG Design

Horror Story Writing

Improv

Magic: The Gathering

Experience

Narrative Designer/Prompt Engineer, *Astrobeam*, Febuary-April 2025

Stellar Café, released VR game about multiplayer interaction with generative AI powered NPCs

- Assisted in the development of a Quest 3 VR game in Unity
- Integrated and optimized generative AI tools for the creation of dialogue
- Ran playtests multiple times a week to iterate on AI and game functionality
- Wrote background info and example dialogue for RAG implementation in order to flesh out the world and characters
- Employed prompt engineering to reduce hallucination, improve output, and allow for integration with other gameplay systems

Technical/Game Designer, *Hysteria in Howlsbend*, January-May 2023

A witch trial interrogation game utilizing freeform user input and real-time AI generated text

- Developed a game where the player plays an interrogator during a witch trail, having freeform conversations with NPCs that have real-time ChatGPT generated dialogue
- Created systems for controlling the changing conversation topics and emotions of the conversational AIs to increase their believability and reactivity
- Integrated machine learning technologies with Unity to react to freeform user input
- Created gameplay systems for player interrogation and the tutorials to explain them
- Worked with a co-writer to develop over 1000 lines of dialogue
- Over 30000 downloads on the Epic Game Store

Technical/Game Designer, *Recollection*, January-May 2024

A VR experience that puts you in the shoes of an artist dealing with trauma

- Developed a Quest 3 VR game in Unity exploring an artist's journey to confront how a car crash trauma that resulted in the death of their mother affected them
- Created a custom watercolor and stencil shading system to visually represent the ways we perceive memory
- Utilized environmental storytelling to convey this highly personal narrative
- Designed novel gameplay mechanics around painting the 3D environment
- Implemented various unique VR interactions that enhanced immersion

Systems Programmer, *A Storm of Voices*, August-December 2023

An emotional LBE experience utilizing directional speakers

- Designed a lobby installation for the CMU School of Drama's production of *Lear*, an experimental play exploring creating art during the impending death of a loved one
- Created *A Storm of Voices* that made the internal voices of the show's characters external to the audience through directional speakers
- Collaborated with the show's dramaturg and director to deliver a shared vision of the end product and enhance the experience of the show
- Wrote and directed all the voice lines for the experience
- Developed both the hardware and software necessary for the show system to run