

Xavier Yang

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Projects

Tape Measure - AR mobile App (AppStore & Google Play)

- Used Unity's AR Foundation framework to integrate digital content into the real world. Enabled user interaction with AR objects via device camera and accurate plane detection for distance calculations.

WayToHell - 2D mobile Game (AppStore & Google Play)

- Designed and developed game mechanics, player controller, and UI scaling for devices. Optimized performance and implemented a leaderboard using Lootlocker network SDK

Sentiment Analysis of the COVID-related Reddit Posts

(Paper: <https://arxiv.org/abs/2205.06863>)

- **Data Collection:** Gathered comments using Reddit APIs
- **Data Preprocessing:** Filtered and pre-processed raw datasets
- **Topic Modeling:** Applied gensim LDA model for topic modelin
- **Sentiment Classification:** Used NLTK VADER and TextBlob to classify comments
- **Validation:** Sampled and calculated Cohen's Kappa score
- **Machine Learning:** Applied various algorithms using Python and scikit-learn: confirmed results with Weka

Location

Toronto/Markham, Ontario
(willing to relocate)

Portfolio

<https://krancce.github.io/>

Education

Bachelor of Computer Science

Skills

C# Java Python C++ HTML
SQL Lua JavaScript .NET
Unity-Engine Android-Studio
PyTorch React.js Phaser.js
Natural-Language-Processing

Experience

Software Developer

---CAST Group (Feb 2023 - Mar 2024)

1. Developed 3D Tracking System Integration:

- Created a product that seamlessly integrates a 3D tracking system with PTZ (Pan-Tilt-Zoom) cameras.
- Enabled automatic camera tracking of targets, enhancing user experience during live shows.

2. Event-Driven Camera Control:

- Designed and implemented an event system within the software.
- Users could define various camera actions and associate them with triggerable events.
- Resulted in dynamic camera behavior based on specific conditions during shows.

3. Serialization System Implementation:

- Developed a robust serialization system.
- Stored in-game content, user preferences, and critical data efficiently.
- Ensured seamless data persistence across sessions.

4. User-Friendly GUI and Drag-and-Drop Functionality:

- Utilized the software's GUI (Graphical User Interface) to enhance usability.
- Implemented a Drag-and-Drop system for easy manipulation of UI elements.
- Improved overall user experience and productivity.

5. Bug Fixing and Communication Enhancement:

- Resolved NDI (Network Device Interface) communication issues between the software and PTZ cameras.
- Ensured smooth data exchange and reliable camera control.

6. Multilingual Support and Customer Engagement:

- Contributed to the translation system by adding Chinese Simplified and Chinese Traditional languages.
- Conducted demos and presentations for customers, educating them about the product's features and benefits.