Xavier Yang

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Projects

Hand-written Digit Recognition

- Developed a CNN using the PyTorch framework to recognize handwritten digits from the MNIST dataset. This project involved data preprocessing, model architecture design, training with backpropagation, and performance evaluation

Crossword Lottery Evaluator (Ongoing)

- Developing a mobile application integrating Computer Vision to capture and analyze Crossword Lottery's word-pool to increase buyer's winning rate

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

Totonto/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 Computer-Vision Natrual-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.