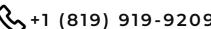
# **Xavier Yang**









# **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
- · 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.