

# Wentao Yao

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## Education

Northwestern University, College of Engineer 09/2021--present

Master of Science in Artificial Intelligence (expected)

GPA: 4.0/4.0

Relevant coursework: Machine Learning, Data Science, Knowledge-Based Representation, Computer Vision & Natural Language Processing.

Ohio State University, College of Arts & Sciences 08/2017--05/2021

Bachelor of Science, Computer Information Science; Mathematics minor

GPA: 3.50/4.00

Relevant coursework: Software Development, Operating System, Machine Learning, Computer Game Animation, Database System, Computer Organization, Data Structure & Algorithm, Knowledge-Based Systems, Linear Algebra, Differential Equations, Honors Calculus I&II, Statistics & Probability Theory

## Selected Course Projects

Contributor for Citizen's Police Data Project in Invisible Institute 09/2021 – 12/2021

MSAI 339: Data Science Seminar

- Worked with a database instance from this project named CPDB for Citizens Police Database. This data is the result of independent research and lawsuits from the Invisible Institute. Their work spans CPD complaint reports and their use of force reports.
- Dived deep into the relationship between location, income level, and police misconduct.
- Applied visualization, interactive visualization, graphic analysis, and natural language processing on the CPDB.

Head of Image Recognition in Covid-19 Detecting by X-ray 08/2019 – 12/2019

MSAI 349: Machine Learning

- Used audio data (audio can be a cough sound or a respiratory sound of a patient) for Covid-19 detection. And used image data (chest or lung X-Ray/CT scans of a patient.) for Covid-19 detection.
- Received a score of accuracy in 0.9725 with CNN and 0.9775 with VGG16 in image recognition. Receive a score of accuracy in 0.88 in audio classification.

Project Manager and Team Leader, Time-Sensitive AI Restaurant App 08/2020 – 12/2020

Capstone Design: Knowledge-Based Systems

- Developed an artificial intelligence chatbot to provide accurate and timely restaurant recommendations
  - Designed auto-adjusting, Multi-layer Perceptron model recommendation base on the users' habit of taking food
- Averaged 94/100 on each stage of development in instructor evaluation

## Competition Projects

Team Leader, I'm Something of a Painter Myself

07/2021 – 08/2021

Use GANs to create art - will you be the next Monet?

- Developed generative adversarial networks (GAN) to generate images in the style of Monet.
- Received a score of 40.39745, reach 29<sup>th</sup> on the leaderboard.

Team Leader, Digit Recognizer

05/2021 – 06/2021

Learn computer vision fundamentals with the famous MNIST data

- Developed digit recognizer in two approaches: K-NN and CNN.
- Received a score of accuracy in 0.9727 with K-NN and 0.9925 with CNN

## Internship Experience

Hantu, Chengdu, Sichuan

05/2018 – 08/2018

Web Developer

- Built reusable code that could be utilized in other projects, effectively saving the company money
- Regularly reviewed information on websites and pages to ensure that it was accurate
- Inputted optimization techniques to boost website speed and performance
- Contributed back-end experience and collaborated on APIs

## Extracurricular Competition

7627A VEX Robotics Team

08/2014 – 08/2017

Principle Programmer and Team Leader

- Developed preset program-control and manual-control program for a robot
- Led the team to reach Rank 18 in the Asia-Pacific Robotics Championship, and Rank 31 in the World Championship, the best ranking in the team's history
- Won the Judge's Award, one of only three teams in the World Championship

## Skills and Language Proficiencies

- Technical: C, C#, Python, Java, MATLAB, LaTeX, Linux
- Frameworks: PyTorch, TensorFlow, CNN, GAN
- Languages: Chinese (native), English (fluent)