

Qingyuan Yao

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EDUCATION

New York University

Sep 2019 - May 2023

Math & CS Bachelor CAS

New York

GPA: 3.81/4.0

Taken Course: Data Structure, Object-oriented programming, Algorithms, Web Design, Operating System, Databases, Artificial intelligence, Natural Language Processing, Computer Vision, Probability, Numerical Analysis, Linear Algebra

Northwestern University

Sep 2023 - Dec 2024

Master of Science in Computer Science

Chicago

GPA: 0/4.0

TECHNICAL SKILLS

- Programming Languages: Python, C++, Java, JavaScript, SQL, HTML, CSS
- Framework: Node.js, Express, React, Flask, Pandas, BeautifulSoup, PyTorch, TensorFlow
- Tools: Linux commands, Git
- Database: MySQL, PostgreSQL, MongoDB

PROJECT EXPERIENCE

Course Review Web Application

Mar 2023 - Mar 2023

- Built a back-end, web-based course review website using Express and MongoDB
- Used MongoDB, Node.JS to build Authentication for password privacy protection

COVID-19 Question-Answering Chatbot

Oct 2022 - Nov 2022

- Built a web-based intelligent chatbot which simulated a doctor to answer COVID-19 related questions
- Researched on language embedding generation techniques such as Bidirectional Encoder Representations from Transformers(BERT) and utilized information retrieval method TF-IDF to automatically generate natural language on the back end
- Utilized HTML and Flask to create GUI web application

Viterbi HMM POS tagger

Sep 2022 - Oct 2022

- Built a Viterbi Algorithm and Hidden Markov Models to perform part-of-speech (POS) tagging using Python, which achieved 95% accuracy on predicting the correct tags for The Wall Street Journal corpus

Online Air Ticket Reservation System

May 2022 - Jun 2022

- Utilized Python, Flask and MySQL to build a project relating to the simulation of real-life online air ticket reservation system
- Independently designed the relational database schema to store online transaction
- Implemented entity relational model for the database and built web-based application to connect with database using Flask and SQL

Naive Bayes Text Classification

Apr 2022 - May 2022

- Built Naive Bayes classifier for text classification using Python
- Utilized NLTK for data normalization and omitted stop words and evaluated the classifier quality with F1 scores and R-squared metrics

INTERNSHIP EXPERIENCE

OneClass Education Technology Co., Ltd

May 2021 - Jul 2021

Data Analyst

Beijing

- Extracted course information from various data sources of web servers by automated tools using Python
- Performed data cleaning and analysis to assess quality and meaning of data by Python Pandas
- Designed the relational database system by establishing Entity Relationship Model and implemented the database framework using SQL
- Built a web server with Python to accommodate user sign in/out requests and assisted the technical department to perform beta test for the "Studemy" mobile application using SQL

Chinese Academy of Sciences, Institute of Automation

June 2022 - Aug 2022

Research Assistant

- Conducted research on vision-based robotic grasping
- Conducted research on Mask-RCNN model as compared to previous R-CNN model with respect to speed and precision
- Implemented a pre-trained Mask-RCNN model that used Resnet-50-FPN as the backbone and fine-tuned it for dataset