Qingyuan Yao

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New York

EDUCATION

New York University Sep 2019 - May 2023
Math & CS Bachelor CAS New York
GPA: 3.79/4.0
Taken Course: Data Structure, Object-oriented programming, Algorithm, Web Design, Operating System, Databases, Artificial intelligence, Natural Language Processing, Computer Vision, Probability, Numerical Analysis, Linear Algebra

TECHNICAL SKILLS

- Programming Languages: Python, C++, Java, SQL, HTML, CSS, JavaScript, Matlab
- Framework: PyTorch, TensorFlow, OpenCV, Flask, Pandas, BeautifulSoup
- Tools: Linux commands, Git
- Database: MySQL, PostgreSQL, MongoDB

PROJECT EXPERIENCE

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
- Utilized language embedding generation techniques such as Bidirectional Encoder Representations from Transformers(BERT) and 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-squaredmetrics

U.S. Epidemic Prediction Model Sep 2020 - Dec 2020

- Extracted epidemic data from CDC and utilized Python to build epidemiologic model to conduct data analysis
- Utilized numerical method for solving linear system and made prediction for the inflection point
- Modified the model by considering government intervention measures and analyzed the correlation between each measure and its effect
- Utilized Python for data processing and image rendering and produced analysis reports using LaTeX

INTERNSHIP EXPERIENCE

OneClass Education Technology Co., Ltd May 2021 - Jul 2021
Data Analytic 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 Jul 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 our dataset