Zihao Li

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EDUCATION

Northeastern University   *Shenyang, China*

B.Eng. Computer Science   *Sep 2019 – Jun 2023*

   GPA: 84.7/100

   Awards

· Third prize of Liaoning Province in the National Mathematics Competition for College Students   *2021*

· Third class Scholarship (top 30% of students in NEU)   *2020*

EXPERIENCE

Software Engineer Intern   *Suzhou, China*

Maxnet Inc.   *Jul 2022 – Aug 2022*

· Worked in the feature analysis group on a crawler project and implemented image crawling and optical character recognition (OCR) to obtain valid information from the images.

· Optimized a feature recognition algorithm and increased the speed by 50%.

Research Assistant   *Remote*

North Carolina State University Global Training Initiative   *Jan 2022 – Feb 2022*

· Participated in the 2022 Winter GEARS Online Program and researched the topic, "Machine Learning Algorithms and Applications including Perceptron Learning Algorithm (PLA), Artificial Neural Networks (ANN), and Convolutional Neural Networks (CNN)".

Summer School Student   *Remote*

Peter the Great St. Petersburg Polytechnic University   *Aug 2021*

· Final Grade: A (95%).

· Completed a New York City taxi fare prediction project. Imported 54 million lines of data using *Dask* and predicted the results using *XGBoost*. It ranks top 30% on Kaggle.

PROJECTS

Plant Seedlings Classification with CNN and Image Processing   *Jul 2022*

· Classified and predicted the plant seedling images with over 90% accuracy using convolutional neural networks (CNN) built with TensorFlow.

· Created a graphical interface using *PyQt5*, where image files could be selected to get prediction results.

Modeling the Effectiveness of Quarantine Control in COVID-19 Infection Spread   *Feb 2022*

· Used a combination of mechanistic mathematical modeling with machine learning to study the effects of quarantine policies in controlling the spread of the COVID-19 infection.

· Utilized the classic SIR (Susceptible, Infectious, Recovered) epidemiological model as a based model and an ANN as a universal approximator to model the effects of quarantine control on the spread of the virus.

Logistics Information Management App   *May 2022*
· Developed an Android application that can parse XML and JSON data from the network; used a local
  database for operations.

Analysis of the presidential preference of American voters   *Nov 2021*
· Used Pandas to process 75 million votes of the American voters to analyze their preferences for presidential
  candidates.
· Employed third-party libraries such as Matplotlib and Word Cloud for data processing, exploration, analysis,
  and visualization.

Student Course Selection Management System   *Sep 2021*
· Used Java to implement functions such as course selection, course cancellation, teacher scheduling, and
  educational administration management.

TECHNICAL SKILLS

Programming Languages: Python, Java, C, C++, HTML, CSS, JavaScript
Software Tools: TensorFlow, Scikit-Learn, Keras, NumPy, Pandas, Git, Vue

COURSERA CERTIFICATIONS

[Natural Language Processing in TensorFlow](#) (offered by DeepLearning.AI)   *Aug 2022*

[Introduction to Data Science in Python](#) (offered by University of Michigan)   *Sep 2021*

[Python Data Structures](#) (offered by University of Michigan)   *Sep 2021*