# Zihao Li

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#### Education

#### **Northeastern University (China)**

Shenyang, China

Bachelor's degree, Computer Science

Sep 2019 - Jun 2023

# Experience

#### **Software Engineer Intern**

Suzhou, China

Maxnet Inc

Jul 2022 – Aug 2022

· Internship in the feature analysis group, responsible for a crawler project, implementing image crawling and OCR of images to obtain valid information, optimizing feature recognition algorithms

Research Assistant Remote

North Carolina State University

Jan 2022 - Feb 2022

- · NC State University Global Training Initiative, 2022 Winter GEARS Online Program.
- · Research Topic: Machine Learning Algorithms and Applications including PLA, ANN, CNN

Summer School Student Remote

Peter the Great St.Petersburg Polytechnic University

Aug 2021

· Completed a New York City Taxi fare prediction project on Kaggle by using machine learning models.

## **Projects**

# Application of ANN for Modeling the Effectiveness of Quarantine Control in COVID-19 Infection Spread

- · A combination of mechanistic mathematical modeling with machine learning was used to study the effects of quarantine policies in controlling the spread of the COVID-19 infection.
- The classic SIR epidemiological model was used as a based model. An artificial neural network (ANN) was used as a universal approximator modeling the effects of quarantine control on the spread of the virus.

## Plant Seedlings Classification with CNN and Image Processing

- · Classification and prediction of plant seedling images using convolutional neural networks (CNN) built with *Tensorflow*.
- · A graphical interface was created using *PyQt5*, where image files can be selected to give prediction results.

#### Analysis of the presidential preference of American voters

- · Used Pandas to process 75 million votes donated by American voters to analyze their preferences for presidential candidates.
- · Called the Third-party libraries such as *Matplotlib* and *WordCloud* for data set processing, data exploration, data analysis, and data visualization.

#### **New-York-City-Taxi-Fare-Prediction**

· Imported 54 million lines of data by Dask, predicted results by using XGBoost and it ranks around 30% on Kaggle.

#### **Logistics information management APP**

· Completed an Android APP that can parse XML, and JSON data from the network, and used a local database for operations.

## Student course selection management system

· Used Java to complete functions including course selection, course cancellation, teacher scheduling, and educational administration management.

# **Programing Languages & Skills**

Python, Java, C, C++

JavaScript | HTML | CSS | Vue

Machine Learning, TensorFlow, Scikit-Learn, Keras, Numpy, Pandas, Algorithms, Android Development, Git

#### **Awards**

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

### 2020 Third class Scholarship

· A scholarship to the top 30% of students in NEU

# Certifications

Natural Language Processing in TensorFlow	Coursera
Credential ID BKDZGKE436V7	Issued Aug 2022 · No Expiration Date

**Introduction to Data Science in Python** Coursera Credential ID NND5XD2TC3EO Issued Sep 2021 · No Expiration Date

**Python Data Structures** Coursera

Credential ID A3LJ8LRMR6CL Issued Sep 2021 · No Expiration Date