Zihao Li

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Education

Northeastern University (China)   *Shenyang, China*

Bachelor's degree, Computer Science   *Sep 2019 – Jun 2023*

· **GPA**: 84.5/100

· **Relevant Curriculums**: Object-Oriented Programming(98), Algorithm Design and Analysis(89), Probability Theory and Mathematical Statistics(93), Web Programming Technology(95), Software Modeling Technology(95), Computer Architecture(93).

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.

· Optimize a feature recognition algorithm, a 50% increase in speed.

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*

· Final Grade: A(95%).

· 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, 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 NND5XD2TC3EQ   *Issued Sep 2021 · No Expiration Date*

Python Data Structures   *Coursera*

Credential ID A3LJ8LRMR6CL   *Issued Sep 2021 · No Expiration Date*