Yan Wang

Email: 0324wy@gamil.com, Homepage: https://0324wy.github.io

SUMMARY

Yan Wang is a self-motivated individual who **ranked first in his major** during undergraduate studies and was recommended to Shanghai Jiao Tong University. During his master's studies, he developed a strong interest in machine learning and computer systems, and studied core computer courses such as Machine Learning, Operating Systems, Database Principles, and Computer Networks.

After graduation, he joined Baidu as a software engineer and wrote over 20,000 lines of code in nearly two years. **He has strong programming and system design abilities** and deals with Redis, Zookeeper, and other distributed systems on a daily basis.

He has a strong interest in **machine learning systems** and seeks to further explore the field.

EDUCATION

Shanghai JiaoTong University, ShangHai, China   Aug, 2018 - Mar, 2021
M.Eng. in Civil Engineering, Advisor: Prof. Zhaolong Han

ShenYang JianZhu University, ShenYang, China   Aug, 2014 - Jun, 2018
B.Sc. in Civil Engineering, GPA: 3.98/4, Rank: 1/313

PROJECTS

Needle

Topic: Deep Learning Library   Jan, 2023 - Mar, 2023

- Designed and built a deep learning library called Needle, comparable to a very minimal version of PyTorch or TensorFlow, capable of efficient GPU-based operations, automatic differentiation of all implemented functions, and the necessary modules to support parameterized layers, loss functions, data loaders, and optimizers. [Project Code]

BaiDu Ltd.   Mar, 2021 - Jan, 2023

Topic: Baidu E-commerce Distributed Order System

Senior Software Engineer

- Participated in the design and development of the Baidu e-commerce order system, which provides general capabilities such as ordering, payment, fulfillment, after-sales, and evaluation. Took charge of systems design and development, defect modification, and code maintenance. Contributed over 20,000 lines of code.

Shanghai Jiaotong University   Aug, 2014 - Jun, 2018

Topic: Deep Learning Model for Wind Speed Prediction

Graduate Researcher, Advisor: Prof. Zhaolong Han

- Proposed a novel model called CNN-LSTM to enhance the accuracy of regional wind speed prediction. <u>Drove the entire project from scratch</u>, including selecting the research topic, finding open source data, thinking of ideas, and writing project code.

COURSES

Computer Science Foundation: C Programming, Data Structures and Algorithms, Computer Systems (CMU 15-213), Operating Systems, Computer Networks, Databases, Distributed Systems (MIT 6.824)

Mathematics: Advanced Mathematics, Linear Algebra (MIT 18.06 by Gilbert Strang), Probability Theory and Mathematical Statistics, Partial Differential Equation, Computational Methods

Machine Learning: Machine Learning, Deep Learning, Reinforcement Learning, Deep Learning Systems (10-714), Machine Learning Compiler (MLC)

SKILLS

Programming Languages: Python, Java, C/C++, Go, SQL

Tools and Frameworks: Git, PyTorch, Tensorflow, Linux, MySQL, Redis, Docker

PUBLICATIONS

[1] Y Chen, **Y Wang**, Z Dong, J Su, Z Han, D Zhou, Y Zhao, Y Bao.

2-D regional short-term wind speed forecast based on CNN-LSTM deep learning model. [Paper Link]

Energy Conversion and Management. (2021, IF: 9.7). 10.1016/j.enconman.2021.114451.

[2] Y Chen, Z Dong, **Y Wang**, J Su, Z Han, D Zhou, K Zhang, Y Zhao, Y Bao.

Short-term wind speed predicting framework based on EEMD-GA-LSTM method under large scaled wind history. [Paper Link]

Energy Conversion and Management. (2020, IF: 9.7). 10.1016/j.enconman.2020.113559.

[3] Y Chen, Z Dong, J Su, **Y Wang**, Z Han, D Zhou, Y Zhao.

Framework of airfoil max lift-to-drag ratio prediction using hybrid feature mining and Gaussian process regression. [Paper Link]

Energy Conversion and Management. (2021, IF: 9.7). 10.1016/j.enconman.2021.114339.

AWARDS

2017 Principle's scholarship (Highest scholarship in Shenyang Jianzhu University, 0.1%)

2017 The Third Prize of the 18th Chinese Mathematics Competitions (Organized by Chinese Mathematical Society, 1%)

2017 Meritorious Winner of the 29th Mathematical Contest In Modeling (Organized , 4%)

2015~2018 The First Prize Scholarship (Awarded by Shenyang Jianzhu University, 0.3%)