

Jiancheng Zhang

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Personal Profile

A Shandong University undergraduate student. Dedicated to software engineering(undergraduate major), having two or more years of expertise, and specialising in algorithms, machine learning, and deep learning.

Education

Shandong University

Shandong, China

BEng in Software Engineering

Sept 2020 - Current

- Studying at AI experimental class
- GPA 89.64/ 100
- **Academic record** : Advanced Mathematics (93), Linear Algebra (100), Probability and Statistics (95), Fundamentals of machine learning (98), Mathematical Logic and Mathematical Analysis (91), Deep Learning and Its Applications (95), Intelligent Robotics and Algorithm Design (95), Biological Informatics and Computing(Bilingual) (91), Data Analysis and Mining(Bilingual) (90)

University Projects

Multimodal Short Video Analysis and Product Retrieval for Temporal Media

Shandong, China

Shandong University

Oct 2022 - Jan 2023

- Analyzing the multimodal data under the short video product recommendation tasks to realize the product retrieval based on multimodal data.
- Based on the machine learning model for processing different types of data, the task was realized through the recommendation algorithm using the technology of multimodal feature fusion.
- **Technical Skills**: Multimodal Processing, Recommendation Algorithm, Deep Learning.
- **Soft Skills**: Report writing, Logical thinking, Presentation skills.

Grid Data Classification Based on POI

Shandong, China

Shandong University

Feb 2022 - May 2022

- Analyzing the given POI data and category tree data to obtain the potential representation of grid data and use it for grid classification.
- The grid was regarded as graph data, and the graph algorithm and deep learning model were used to obtain the potential representation of the grid data for classification.
- **Technical Skills**: Deep Learning, Graph Algorithm, Python with Pytorch.
- **Soft Skills**: Report writing, Teamwork, Presentation skills.

The Vehicle Type Identification Based on Vehicle Traffic Records

Shandong, China

Shandong University

Oct 2021 - Feb 2022

- Analyzing the track data of the vehicle recorded by the camera for 30 days from November 1 to November 30, 2019, to judge the category of the vehicle.
- Each field of the given data was analyzed to excavate potential vehicle patterns by building features and models, and the effectiveness of our model was verified through experiments.
- From the experimental results, the patterns we had discovered were satisfactory.
- **Technical Skills**: Machine Learning, Data Analysis, Feature Engineering.
- **Soft Skills**: Time management, Report writing, Group cooperation.

Research Experience

Feb 2023 - now	Research on Computational Biology , I'm following Dr.Xia for research on biological trajectories.	China
May 2022 - Feb 2023	Explainable AI + data augmentation for EHR , I did some work on data augmentation with respect to data scarcity and explainable technology for the public large medical dataset mimic-iii, and submitted to a journal.	China
Sep 2021 - Dec 2021	Review on EHR , I conducted an extensive survey of the relevant literature on EHR (Electronic Health Record) and published a review on EHR.	China
Jul 2021	Adviser: Prof. Yonghui Xu , I joined Xu's lab in July 2021.(The lab is in Joint SDU-NTU Centre for Artificial Intelligence Research (C-FAIR))	China

Skills

Programming Python (Pandas, PyTorch, NumPy, Scikit-learn, Matplotlib. etc.), C/C++, HTML/CSS, JavaScript, SQL, JAVA.
Miscellaneous Linux, \LaTeX (Overleaf), Microsoft Office, Web, Git.
Soft Skills Time Management, Teamwork, Logical Thinking, Documentation, Presentation.

Achievements

2022	Second-class , Special Skills Scholarship of Shandong University	China
2022	Second-class , Academic Scholarship of Shandong University	China
2022	Honorable Winner , Mathematical Contest In Modeling/Interdisciplinary Contest In Modeling(MCM/ICM)	China
2021	First Prize in Shandong Province , China Undergraduate Mathematical Contest in Modeling(CUMCM)	China

Publications

JOURNAL ARTICLES

EAPR: Explainable and Augmented Patient Representation Learning For Disease Prediction
 IEEE Journal of Biomedical and Health Informatics [under review]

CONFERENCE PROCEEDINGS

A Survey on Knowledge Enhanced EHR Data Mining
 Jiancheng Zhang, Xiao Yang, Hefeng Meng, Zhiqiang Lin, Yonghui Xu, Lizhen Cui
5th International Conference on Crowd Science and Engineering, 2022, Jinan, China

Interests

Basketball	Although I am not tall, I enjoy playing basketball, which is beneficial for my health.
Movies	I am keen on watching movies in my leisure time, especially science fiction films.
Reading	I enjoy reading all kinds of novels, and I like science fiction best.
Running	I am used to running every day in summer, because aerobic exercise is more beneficial to health.
Delicious Foods	My wish is to visit as many restaurants in the world as possible to taste different kinds of delicious food.

Languages

English Professional proficiency
Chinese Native proficiency