Siyuan Li (黎思源)

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Projects Website: https://github.com/liaoyanqing666

EDUCATION

Shanghai University   09/2021-06/2025
B.E. in Artificial Intelligence   GPA: 3.82/4.0 (93.94/100), Ranking: 1/52

RESEARCH & INTERNSHIP

Research in SHU Brain-like Computing Center Lab | **AI for Recognizing Preference** | Leader   04/2024-09/2024
Advisor: Prof. Huiran Zhang(Shanghai University)

➢ Proposed a novel ERP composite formula for analyzing human preferences.

➢ Achieved effective classification of preferences using AI methods combined with the developed formula.

➢ Authored a manuscript as the first author titled "Brain Responses to Preferences: Insights from ERP Components and Emotional Processing" which is prepared for submission.

Research Intern in Westlake University | **Rule Discovery in Physical Data/Video** | Leader   07/2023-06/2024
Advisor: Prof. Tailin Wu (Westlake University), Prof. Sebastian Musslick (Brown University)

➢ Developed a transformer-based model and programed to experiment with symbolic regression tasks.

➢ Modeled and transferred symbolic regression tasks to the domain of videos.

➢ Explored the discovery of physical system patterns from videos to empower scientific discovery tasks.

Research in Shanghai University | **Video Frame Interpolation with PVT** | Leader   04/2023-06/2023
Advisor: Prof. Hang Yu (Shanghai University)

➢ Reviewed relevant literature according to task requirements and established a PVT-based encoder U-net model.

➢ Wrote code and conducted experiments, achieving state-of-the-art results in terms of SSIM performance.

PROJECTS

All project repositories: **https://github.com/liaoyanqing666**

Cross-Modal Pretrained Model Alignment   07/2024

➢ Proposed and implemented a method to quickly align pre-trained models from different modalities.

➢ Designed a twin neural network similarity module to align pretrained models with varying embedding dimensions.

➢ Achieved rapid model alignment between text and image modalities with minimal training on a standard image classification dataset, rather than requiring a large "image-description" dataset typical for models like CLIP.

➢ Experimentally demonstrated the project's ability to align quickly with minimal GPU requirements and satisfactory performance.

Reproduction and Experimentation of Paper of TextCNN   03/2023

➢ Reproduced and experimented with the TextCNN model.

➢ Performed tokenization and encoding of sentence content, followed by padding or truncating sentence lengths.

➢ Implemented word embedding and utilized multiple convolutional kernels of varying sizes for feature extraction, pooling, and final classification through fully connected layers.

Force Video Classification Based on CNN-LSTM   02/2023

➢ Developed a network model based on CNN for video frame feature extraction and LSTM for sequential frame feature computation.

➢ Implemented classification using KNN or ANN and trained the model through experiments.

Handwriting Recognition System Based on Siamese Neural Networks   11/2022

➢ Independently designed and coded a system utilizing VGG16 for signature feature extraction.

➢ Achieved 100% accuracy on the CEDAR dataset using Siamese neural networks for classification.

➢ Developed frontend-backend interaction programs enabling the utilization of training results on web platforms.

PAPERS

Brain Responses to Preferences: Insights from ERP Components and Emotional Processing. (In preparation for submission)
Yuhang Guo, **Siyuan Li (Co-first author)**, Jinxuan Wu. (2023). Research advanced in offline handwritten signature verification. Applied and Computational Engineering, 6(1), 1244-1252. DOI: 10.54254/2755-2721/6/20230653.

AWARDS

ICPC (International Collegiate Programming Contest) Asia Regional Contest (Hefei) **Bronze Medal**	11/2023
ICPC (International Collegiate Programming Contest) Asia Regional Contest (Nanjing) **Bronze Medal**	11/2022
ASC Student Supercomputer Challenge **National Second Prize**	02/2024
Group A of C/C++ Division of Blue Bridge Programming Cup **National Third Prize**	06/2023
Group A of C/C++ Division in Shanghai Division of Blue Bridge Programming Cup **First Prize**	04/2023
CCPC (China Collegiate Programming Contest) Shanghai Programming Contest **Silver Medal**	10/2022

SKILLS & QUALIFICATIONS

Programming language: Python (Advanced), C++ (Proficient), Matlab (Familiar)

Software: Git&Github, Office Word, LATEX, Markdown, Remote SSH of VSCode

AI-related skills: Pytorch (Advanced), Transformers (Proficient Understanding), LLM (General Understanding)

SCHOLARSHIP & HONORS

First-class Academic Scholarship	11/2023&11/2022
Leadership Scholarship	11/2023&11/2022
Loving Heart Volunteer Scholarship	11/2023&11/2022
Outstanding Student of Shanghai University	11/2023&11/2022
Top 100 Outstanding Students of Shanghai University	05/2023

EXTRACURRICULAR & VOLUNTEER ACTIVITIES

New Media Center, School of Computer Engineering and Science | Chairman   01/2022-01/2023

➢ Managed content publication on the School of Management's official WeChat account and coordinated daily tasks.

➢ Organized and managed recruitment presentations, student representative meetings, and other related affairs.

ByteDance | Campus Ambassador   03/2022-06/2022

➢ Assisted Bytedance company in promoting spring recruitment and summer internship, distributing local push manual and internal push code.

Volunteer time: 100h+