SICHENG FENG(冯思程)

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🎓 EDUCATION

Nankai University   2021.9 – now
Bachelor of Computer Science　　Score: 90.64/100　　GPA: 3.78/4   Tianjin, China

- Second-Year GPA: 3.87/4 (Score: 91.79/100)　　Third-Year GPA: 4/4 (Score: 93.72/100)
- ML, AI, Linear Algebra, Probability and Mathematical Statistics, Method of Computing, Algorithms, Discrete mathematics, OS, etc.

💼 Publication

[1] **Sicheng Feng**, Siyu Li, Shengquan Chen*. "Unveiling potential threats: backdoor attacks in single-cell pretrained models" Submission to *Nature Communications*

💼 RESEARCH EXPERIENCE

Missing TS Backdoor Research Group   2023.9 – 2024.2
Research Assistant   NKU

- Collected datasets (UEA, Physionet_2012) and conducted preprocessing such as unifying timestamps for time series data, primarily utilizing the PyPOTS and TSDB libraries.
- Conducted backdoor attack Exps on various models(BRITS, LSTM, TCN, CNN, RNN) for TSC, where the trigger design was primarily related to the time series missing rate. The approach showed effectiveness. Plans for further optimization of the trigger design include adding optimization tricks.

🔧 PROJECT EXPERIENCE

Artificial Intelligence Internship Team Project [Code]   2023.5 – 2023.7
Team Leader   ChinaSoft-NKU

- Led team to successfully develop a medical knowledge graph intelligent question answering system utilizing the Neo4j database.
- Focused on implementing parallelized data crawling, adeptly processing vast datasets (600K+), utilizing the Django framework, crafting data visualizations using Echarts, and developing backend intelligent answering algorithms.
- Won the 'Excellent Team' award in the final defense competition.

University Integration Project(Course Projects) [Code]   2023.3 – now
Personal Projects   GitHub

- In the ML course, I developed and optimized several models including KNN, Naive Bayes, and decision trees. For the final project, I replicated and improved scGMAI by employing param search and module replacement, achieving third place in the course project.
- Systematically organized and stored various codes, including academic coursework and project work, on GitHub, where I have received more than 30 stars for my repositories.

⚙️ PROFESSIONAL SKILLS

- Programming Languages: Python(Pytorch, scikit-learn, Pandas, NumPy, TensorFlow), C/C++, Rust, HTML, Shell, SQL.
- Languages: English - CET4 (608), CET6 (582); Mandarin.
- Other Skills: Latex/Markdown, Git cooperation, parallel programming, compiler design, Linux.
- Tools: ChatGPT-4, Copilot, OpenAI-API.

🏆 AWARDS & SCHOLARSHIPS

Awarded provincial second prize in the National College Student Mathematical Modeling Competition 2023.12
Awarded first-class university scholarship   2023.10
Awarded national third prize in the Huashu Cup National College Students Mathematical Modeling Competition   2023.8
Led a team awarded the 'Excellent Team' title   2023.7