SHEN OU-YANG

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"Everything we imagine will turn into reality."

Education

Nanjing University, Nanjing, China   **Sept. 2023 – Present**
Computer Science and Technology   *GPA: 4.59/5 Rank: 8/209*

Nanjing University, Nanjing, China   **Sept. 2021 – June. 2023**
Applied Chemistry*   *GPA: 4.53/5 Rank: 5/119*

*My major was adjusted to Chemistry and Life Sciences when I first enrolled in university. During the first two years of my undergraduate studies, I studied Applied Chemistry and Computer Science and Technology. Afterwards, I switched majors to study Computer Science.

Research Interests

- Brain-Computer Interface
- Machine Learning
- Artificial Intelligence
- Neuroscience

Research Experiences

Scientific Research Intern Course   **July 2023 – Present**
Supervised by Dr.Guihuan Feng, Software Institute in Nanjing University

- A compulsory course for CS students that allows them to freely choose research directions and mentors based on their personal interests.
- Developing an understanding of the background and fundamental knowledge of brain-computer interfaces (BCIs) by engaging with the literature.
- Trying to master the fundamental EEG-based BCI techniques and learning to apply machine learning for signal analysis and recognition through project-based practice.
- Leading a National College Students' Innovation training program.

Machine Learning: Math Foundation & Applications   **Jan. 2024 – Feb. 2024**
Remote Research Program   *Mentored by Pf. Hien Tran at NC State University*

- Learn about the mathematical background of several supervised learning models.
- Apply several deep learning models(GRU/LSTM/EEG-Conformer) for EEG-based Emotion Recognition.

Projects

EEG-Based Brain-Computer Interaction in Virtual Reality | *BCI, AI, VR* | 🔗 link   **Sept. 2023 - Dec. 2024**

- Hosted as a National College Students' Innovation training program.
- Currently on the stage of planning & preparation.
- Aiming to
  * a) Enhance the interactive experience by integrating brain-computer interface (BCI) technology into virtual reality (VR).
  * b) Develop BCI technology that benefits the general public by utilizing VR as an application scenario.

Skills

Programming: C/C++, Python, PyTorch, Linux, MATLAB
Language: Chinese(Native), English(Fluent, CET-6 618, TOEFL 103(Speaking:25))

Honors & Awards

- the People's Scholarship($\leq 15\%$), Nov.2023
- CCF-CSP top 6.8%, Dec.2023
- Nanjing University Collegiate Programming Contest, Silver Medal(div.2), rk.7(11%), May.2023
- LeetCode Cup 2023 Spring Programming Contest, top 4%, May.2023
- Nanjing University Collegiate Programming Contest, Silver Medal(div.2), rk.9(13%), May.2022

*In the first two years before I transferred to the Computer Science Department, I was not qualified for a scholarship for not completing some of the chemistry major courses on time.