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: 4.56/5 Rank: 10/227*

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.

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))

Relavent Coursework(including courses still learning)

Math: Calculus(Tier 1), Linear Algebra(Tier 1), Discrete Mathematics.
Major coursework: Basics of Programming, Digital Logic and Computer Organization, Advanced Programming, Data Structures, Algorithms Design & Analysis, Introduction to Computer Systems, Computer Network, Operating System, Formal Languages & Automata, Principles of Cryptography.
Elective coursework: Graph Theory & Analysis, Instrumental Analysis, Neural Networks.

Honors & Awards

- the People's Scholarship($\leq 20\%$), Oct.2023(expected)
- 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.