Yuyan Bu

+86 18261277240 | yuyanbu@bjtu.edu.cn
School of Computer and Information Technology (CIT)
Beijing Jiaotong University, No.3 Shangyuancun, Haidian District, Beijing, 100044, P. R. China

EDUCATION

Beijing Jiaotong University   Beijing, China
Bachelor of Computer Science and Technology   Expected 06/2022

- **GPA:**   **Overall** GPA: **3.83** / 4.00 (Average: **90** / 100)
- **Honor:**
  - The First Prize Scholarship (*Top 3%, issued by Beijing Jiaotong University, 11/2019*)
  - The Second Prize Scholarship (*Top 10%, issued by Beijing Jiaotong University, 11/2020*)
- **Course Highlight:** Calculus(96), Probability Theory and Mathematical Statistics(91), Discrete Mathematics(95), Data Structures(95), Geometry and Algebra(100), Principles of Computer Organization(97)

Selected Honors and Awards(*Optional*)

- First Prize, Traffic science and technology competition for Beijing College Students   11/2020
- Second Prize, Collegiate Programming Contest for Beijing Jiaotong University Students   06/2020
- Second Prize, Mathematical Contest in Modeling for Beijing Jiaotong University Students   04/2020
- Second Prize, The Mathematics Competition for Beijing Jiaotong University Students   11/2019

RESEARCH & PROJECT EXPERIENCE

Google Research exploreCSR   06/2021 – 07/2021
Advisor: Dr. Beiyu Lin, the University of Texas - Rio Grande Valley   Research Intern

- An eight-week research project, works like literature reviews, replications of prior work, improvements of existing research projects, or start new independent research projects are included.
- Work on the topic of AI for Healthcare and doing some research currently.
- Take research group meetings and mentor meetings every week.

Beijing Key Lab of Traffic Data Analysis and Mining   10/2020 – 04/2021
Advisor: Prof. Jing Wang, Beijing Jiaotong University   Student Researcher

- Joined the self-supervised learning research group, which focuses on the study of time series semantic representation.
- Responsible for raw signal processing, investigated related work and reproduced several classical supervised models (SVM etc.) as baseline.
- Group proposed model SleepDPC, which applies self-supervised contrast learning to sleep staging firstly.
- Current work has been accepted as an oral paper at ICASSP 2021 (co-author).
  Self-supervised Learning for Sleep Stage Classification with Predictive and Discriminative Contrastive Coding，IEEE ICASSP 2021

Study on representation learning of physiological time series based on self supervised learning   07/2020 – 04/2021
Advisor: Prof. Jing Wang, Beijing Jiaotong University   Team Leader

- National Training Program of Innovation and Entrepreneurship, won the provincial level in the final-term evaluation.
- The task of the project is to explore how to use a large number of unlabeled EEG data for sleep staging.
- Proposed an improved DPCM model inspired by model DPC and MoCo in the field of computer vision, which uses two encoders for data enhancement, introduces memory queue, and supports multi-view input in time domain and frequency domain. It achieves competitive performance on SleepEDF and ISRUC datasets.
- Finished a paper in Chinese independently.

SKILLS

Languages: Mandarin (Native), English (Fluent, CET4:620, CET6:569)
Technical Skills:

- Proficient in C/C++, Python
- Familiar with Pytorch
- Familiar with Latex writing

Campus Experience:

- Secretary of the office of Student Association for Science and Technology of Beijing Jiaotong University
- Member of Beijing Red Cross Society
- Published popular science article which gains considerable views