Sitong CHEN

Tel: (+86)18236017569 | Email: 12212653@mail.sustech.edu.cn |
No. 1088 Xueyuan Avenue, Nanshan District, Shenzhen, Guangdong, China (518000)

OVERVIEW

As a highly motivated and collaborative student majoring in engineering, I have a strong interest in the the application of Brain-computer interface. During undergraduate studies, I have gained valuable experience in EEG signal acquisition and preprocessing, machine learning, and and decoding algorithms. This entails completing a six-month dataset construction, submitting one paper to Scientific Data, and secured multiple awards reflecting technical and academic excellence, underscoring my dedication to innovation and leadership in BCI research.

EDUCATION

Southern University of Science and Technology ***Sep. 2022 –***

Biomedical Engineering

- GPA: 3.73/4.00, Weighted Average Score: 89.76
- **Scholarships:** Freshmen Scholarship (Second Prize, $1380), The Third Class of the Merit Student Scholarship ($210)

RESEARCH EXPERIENCE

Experiment Conductor, Construction of ChineseEEG-2 Dataset, Southern University of Science and Technology, China

June 2024 – Jan. 2025

Mentors: Dr. Quanying Liu

Outline:

Conducted the main experiment on the construction of the ChineseEEG-2 multimodal EEG dataset, focusing on cross-modal semantic alignment and neural decoding during reading and listening tasks, performed data preprocessing and analysis including Inter-Subject Correlation and audio reconstruction.

Key Responsibilities:

Designed experimental protocols for recording EEG and audio data acquisition during reading-aloud and passive-listening tasks.

Supervised on-site data collection in Macau, ensuring alignment of triggers for temporal synchronization between EEG signals and linguistic stimuli.

Achievements:

Contributed to dataset standardization under the EEG-BIDS framework; Authored sections of the technical validation protocol for inter-subject correlation analysis.

Team Member, Multimodal Speech Neural Decoding Project, Southern University of Science and Technology, China

Sep. 2024 –

Mentor: Dr. Quanying Liu

Outline:

Explored cross-modal neural decoding by aligning EEG signals with speech representations in latent space, and reconstruct the audio or text from foundational large language models (LLMs) like Wav2Vec2 and BERT.

Key Responsibilities:

Implemented multimodal alignment algorithms using Python and TensorFlow to map EEG embeddings to audio-text semantic spaces.

Conducted statistical validation of model performance through inter-subject correlation (ISC) and stimulus reconstruction metrics.

Achievements:

Achieved improved neural decoding accuracy compared to baseline models; Presented basic structure at the 2024 BME Research Day in Southern University of Science and Technology

PUBLICATIONS

Sitong Chen, Beiqianyi Li, Cuilin He, et al. ***ChineseEEG-2:An EEG Dataset for Multimodal Semantic Alignment and Neural Decoding during Reading and Listening[DS/OL]. V1*.** Science Data Bank, 2025[2025-03-12]. https://cstr.cn/31253.11.sciencedb.20611. CSTR:31253.11.sciencedb.20611.

AWARDS & HONOURS

Grand Prize in the 2nd "Yanxing Cup" English Application Skills Competition	*Nov. 2022*
Finalist Award for Competent Organizer in ” Returning to Hometown” in the Campus Committee	*Jan. 2023*
Third Prize in "Understanding Contemporary China" Interpretation Competition ("Guocai Cup")	*March 2023*
Second Prize in the National English Competition for College Students (NECCS)	*Jun. 2023*
"BME Research Day" Outstanding Poster Award	*Nov. 2024*
Third Prize in the "Rixin" Training Camp Roadshow	*Dec. 2024*
Finalist project in 19th "Challenge Cup"	*Feb 2025*

SKILLS

Language Skills: English (Fluent, CET-6 624, CET-SET6 A), Mandarin (Native)

Programming: Python, MATLAB, Java, LaTeX

Specialty: Taekwondo(Reached Green belt / blue tip), Indoor Rowing(second-level athlete standard), Piano(Reached Grade 10)