Sitong Chen

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OVERVIEW

- Highly motivated and collaborative engineering student with a strong interest in Brain-Computer Interface (BCI) applications
- Strong expertise in data collection and analysis in a six-month dataset construction project
- Hands-on experience in EEG signal acquisition, preprocessing, machine learning, and decoding algorithms.
- Authored a research paper to Scientific Data (In submission), showcasing research proficiency.
- Recipient of multiple awards for technical and academic excellence

EDUCATION

Southern University of Science and Technology (SUSTech) Shenzhen, China
B.E. in Biomedical Engineering Sep. 2022–Present

- 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)
- Core course: Machine Learning and Its Medical Engineering Applications(A), Intelligent Sensing Technology(A), Medical image processing(A), Neural Engineering and Brain-computer Interface(A-)

RESEARCH EXPERIENCE

Southern University of Science and Technology Shenzhen, China
Experiment Conductor, Construction of ChineseEEG-2 Dataset June 2024 – Jan. 2025
Advisor: Dr. Quanying Liu

- 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.
- 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 and source reconstruction.

Southern University of Science and Technology Shenzhen, China
Team Member, Multimodal Speech Neural Decoding Project Sep. 2024 –Present
Advisor: Dr. Quanying Liu

- 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.
- 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 & HONORS

Second Prize in the Freshmen Scholarship, *SUSTech* *Nov. 2022*
Grand Prize in the 2nd "Yanxing Cup" English Application Skills Competition, *Guangdong Undergraduate College English Teaching Advisory committee* *Nov. 2022*
Finalist Award for Competent Organizer in “Returning to Hometown” in the Campus Committee, *SUSTech* *Jan. 2023*
Third Prize in "Understanding Contemporary China" Interpretation Competition, *Foreign Language Teaching and Research Press* *March 2023*
Second Prize in the National English Competition for College Students (NECCS), *TEFL China* *Jun. 2023*
"BME Research Day" Outstanding Poster Award, *SUSTech* *Nov. 2024*
Third Prize in the "Rixin" Training Camp Roadshow, *SUSTech* *Dec. 2024*
Finalist project in 19th "Challenge Cup", *SUSTech* *Feb 2025*

SKILLS

Language Skills:

- English (CET-6: 624, CET-SET6 A, IELTS: 7.5); excellent reading comprehension of scientific literature, capable of independently writing academic papers in English, and proficient in communicating research findings with advisors.
- Mandarin (Native).

Programming and Software Proficiency: Python, MATLAB, Java, LaTeX, PyCharm, MicrosoftOffice
Specialty: Taekwondo (Reached Green belt / blue tip), Indoor Rowing (Reached second-level athlete standard), Piano (Reached Grade 10)