Dongyang Li

1088 Taoyuan Street
Shenzhen, Guangdong, China, 518000

Google Scholar
(+86) 183-3921-5783
ldy200016@gmail.com

Education

Southern University of Science and Technology 2023-09 – 2026-06
MSc in Electronic Science and Technology *Shenzhen, Guangdong, China*

Zhengzhou University 2019-09 – 2023-06
BEng in Computer Science and Technology *Zhengzhou, Henan, China*

Publications & Under Review Manuscripts

[1] **Dongyang Li**, Chen Wei, Shiying Li, Jiachen Zou, and Quanying Liu. "Visual Decoding and Reconstruction via EEG Embeddings with Guided Diffusion." *The Thirty-Eighth Annual Conference on Neural Information Processing Systems (**NeurIPS 2024, poster**)*

[3] **Dongyang Li**, Haoyang Qin, Mingyang Wu, Chen Wei and Quanying Liu. "BrainFLORA: Uncovering Brain Concept Representation via Multimodal Neural Embeddings." (***ACM MM 2025, oral***)

[2] **Dongyang Li**, Haoyang Qin, Mingyang Wu, Yuang Cao, Chen Wei and Quanying Liu. "RealMind: Advancing Visual Decoding and Language Interaction via EEG Signals." *2025 IEEE International Conference on Multimedia and Expo (**ICME 2025, oral**)*

[4] **Dongyang Li**, Kunpeng Xie, Mingyang Wu, Yiwei Kong, Jiahua Tang, Haoyang Qin, Chen Wei and Quanying Liu. "MindPilot: Closed-loop Visual Stimulation Optimization for Brain Modulation with EEG-guided Diffusion." (***In submission***)

[5] Ruichao Zhan, **Dongyang Li (Co-first author)**, Song Wang and Quanying Liu. "D2CAN: Domain-guided contrastive adversarial network for EEG-based cross-subject cognitive workload decoding." *The Fourth International Workshop on Human Brain and Artificial Intelligence (IJCAI 2024)*

[6] Sitong Chen, Beiqianyi Li, Cuilin He, **Dongyang Li (Co-first author)**, Mingyang Wu, Xindi Wang, Haiyan Wu and Quanying Liu. "ChineseEEG-2: An EEG Dataset for Multimodal Semantic Alignment and Neural Decoding during Reading and Listening" (***Scientific Data, under review.***)

Research Experience

Neural Speech Decoding via Multimodal Models 05, 2025 – Present
Shanghai Artificial Intelligence Laboratory (Shanghai AI Lab) *Shanghai, China*

- Advisor: Chao Zhang, Professor of Tsinghua University
- Brain foundation models
- Non invasive brain-computer interface based on multimodal models

AI for Brain Encoding and Decoding 02, 2023 – Present
Southern University of Science and Technology (SUSTech) *Shenzhen, Guangdong, China*

- Advisor: Quanying Liu, Professor of SUSTech, PI of NCCLab
- Representation learning to align the human brain with foundation models
- Non invasive brain-computer interface based on multimodal models
- Closed-loop neural regulation system based on reinforcement learning and generative models

Generative Models for Neural Data 06, 2022 – 02, 2023
Southern University of Science and Technology (SUSTech) *Shenzhen, Guangdong, China*

- Advisor: Quanying Liu, Professor of SUSTech, PI of NCCLab
- Neural data interpolation based on diffusion model and state space model

Research Interests

Representation Learning, Multi-modality Learning, Brain-computer Interface, NeuroAI.

Awards & Honors

China Robot Competition, Advanced Vision Competition 3D Recognition Project
National First Prize (Captain) *2022.04*

China Robot Competition, Advanced Vision Competition Industrial Measurement Project
National First Prize, 2nd (Captain) *2022.04*

National College Students' Mathematical Modeling Contest
Provincial First Prize (Captain) *2021.11*

Second Prize Scholarship
Top 10% of college students *2021.09*

"Challenge Cup" National Innovation and Entrepreneurship Plan Competition
Provincial Top Grade Prize, National Bronze Prize *2020.10*

National Encouragement Scholarship
Top 5% of college students *2020.09*

Professional Service

Conference Reviewing: *ICLR, ICML, NeurIPS, KDD, ACL, ACMMM, MICCAI*

Talks

NeurIPS 2024 Workshop in Department of Statistics and Data Science, SUSTech
Visual Decoding and Reconstruction via EEG Embeddings with Guided Diffusion *2024.12*

IJCAI 2024, Workshop of Human Brain and Artificial Intelligence (HBAI)
Domain-guided contrastive adversarial network for EEG-based cross-subject cognitive workload decoding *2024.08*

Major Course

Undergraduate: Calculus (A+), Probability Theory and Mathematical Statistics, High-level Language Programming (A+), Data Structure, Computer Composition Principle, Computer Network (A+), Operating System, Compilation Principle (A+).

Graduate: Matrix Analysis, Advanced Numerical Analysis, Brain Intelligence and Machine Intelligence (A+), Computational Methods, Pattern Recognition and Machine Learning.

Other Skills

Programming Languages: Python, C++, Java, SQL, Bash, Assembly Language
Professional Applications: Latex, PyTorch, Paddle, Git, Matlab.
Data Analysis: Skilled in data preprocessing, visualization, and statistical analysis
English: Fluent (CET-6)
Chinese: Native