Yuanning Li

Curriculum Vitae

393 Middle Huaxia Road
Shanghai, China 201210
✉ *yuanningli@gmail.com*
yuanningli.github.io

Education

2014–2018 **Ph.D.**, *Carnegie Mellon University, Pittsburgh, PA*.
Neural Computation and Machine Learning Ph.D. program
Dissertation: Neural dynamics and interactions in the human ventral visual pathway
Committee: Avniel Singh Ghuman (co-advisor), Max G. G'Sell (co-advisor), Robert E. Kass, Christopher I. Baker

2011–2013 **M.S.**, *Carnegie Mellon University, Pittsburgh, PA*.
Electrical and Computer Engineering

2007–2011 **B.S.**, *Beihang University (BUAA), Beijing, China*.
Electrical Engineering, School of Advance Engineering (Honors College)

Work Experience

2022– **Assistant Professor**, *ShanghaiTech University*, Shanghai, China.
School of Biomedical Engineering

2021– **Visiting Investigator**, *Huashan Hospital*, Shanghai, China.
Neurosurgical Institute of Fudan University

2019–2022 **Postdoctoral Scholar**, *University of California*, San Francisco, CA.
Department of Neurological Surgery/Center for Integrative Neuroscience
Advisor: Edward F. Chang

2014–2018 **Graduate Research Assistant**, *Carnegie Mellon University*, Pittsburgh, PA.
Center for the Neural Basis of Cognition/Machine Learning Department
Advisors: Avniel Singh Ghuman and Max G'Sell

2013–2018 **Graduate Research Assistant**, *University of Pittsburgh*, Pittsburgh, PA.
School of Medicine, Department of Neurological Surgery
Advisor: Avniel Singh Ghuman

Research Interests

Neural basis of speech and language perception. Artificial intelligence models of high-level sensory perception. Statistical machine learning for large scale neural data. Brain-computer interface.

Awards and Honors

2023 The *New Brain 30* Award, Shenzhen Society for Neuroscience

2020 Outstanding Scholars in Neuroscience Award (OSNAP), National Institutes of Health (NIH)

2018 Trainee Professional Development Award (TPDA), Society for Neuroscience (SfN)

2018 Fellow of the Kavli Summer Institute in Cognitive Neuroscience, Lake Tahoe, CA

2015 Fellow of the Summer Institute in Cognitive Neuroscience, Santa Barbara, CA

2015 Multimodal Neuroimaging Training Program (MNTP, NIH training grant), CMU-Pitt

2014 R. K. Mellon Presidential Fellowship, CMU

2012 Carnegie Institute of Technology Dean's Fellowship, CMU

Research Funding

2024-2027 Technology and applications of invasive brain computer interfaces for language and speech. Lingang Laboratory. Ministry of Science and Technology of the People's Republic of China. Role: Principal Investigator. Total funding: CNY 3,000,000.

2024-2027 Understanding the neural basis of Chinese reading using high-density electrocorticography. Shanghai Rising-Star Program, 24QA2705500. Science and Technology Commission of Shanghai Municipality. Role: Principal Investigator. Total funding: CNY 400,000.

2024-2027 Dissecting neural coding and computation mechanisms underlying speech perception using high-density electrocorticography. NSFC General Programs, 32371154. National Natural Science Foundation of China. Role: Principal Investigator. Total funding: CNY 500,000.

2022-2025 Computational cognitive neuroscience and brain-inspired artificial intelligence. NSFC Excellent Young Scientists Fund Program (Overseas). National Natural Science Foundation of China. Role: Principal Investigator.

2022-2024 Neural basis of human language processing and neural encoding-decoding techniques. Shanghai Pujiang Program, 22PJ1410500. Science and Technology Commission of Shanghai Municipality. Role: Principal Investigator. Total funding: CNY 300,000.

2022-2027 Brain computer interfaces for speech disorders in Mandarin. Sci-Tech Innovation 2030 Young Scientist Program, 2022ZD0212300. Ministry of Science and Technology of the People's Republic of China. Role: Co-Investigator (PI: Junfeng Lu). Total funding: CNY 5,000,000.

Publications

(# equal contributions, * corresponding author(s), __ trainees supervised)

Peer-reviewed journal articles

2024+ Peili Chen, Shiji Xiang, Linyang He, Edward F. Chang, **Yuanning Li***. Convergent representations and spatiotemporal dynamics of speech and language in brain and deep neural networks, *under review*. Pre-print doi: `https://doi.org/10.1101/2024.12.28.630582`

2024+ Jiawei Li, Chunxu Guo, Edward F. Chang, **Yuanning Li***. Natural speech resynthesis from direct cortical recordings using a pre-trained encoder-decoder framework, *under review*. Pre-print doi: `https://doi.org/10.1101/2024.12.16.628596`

2024 Daohan Zhang#, Zhenjie Wang#, Youkun Qian#, Zehao Zhao, Yan Liu, Xiaotao Hao, Wanxin Li, Shuo Lu, Honglin Zhu, Luyao Chen, Kunyu Xu, **Yuanning Li***, Junfeng Lu*. A brain-to-text framework for decoding natural tonal sentences. *Cell Reports*, (2024), Vol. 43, Issue 11, 114924, doi: https://doi.org/10.1016/j.celrep.2024.114924

2024 **Yuanning Li**#*, Huzheng Yang#, Shi Gu*. Enhancing neural encoding models for naturalistic perception with a multi-level integration of deep neural networks and cortical networks. *Science Bulletin*, vol.69 (2024): 1738-1747, doi: https://doi.org/10.1016/j.scib.2024.02.035

2024 Ruolin Hou#, Qiongru Guo#, Qinman Wu#, Zihao Zhao, Xindan Hu, Yumei Yan, Wenyuan He, Peize Lyu, Ruisheng Su, Tao Tan, Xiaoqiang Wang*, **Yuanning Li***, Dake He*, and Lin Xu*. Quantification of hypsarrhythmia in infantile spasmatic EEG: a large cohort study. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, vol. 32 (2024): 350-357, doi: https://10.1109/TNSRE.2024.3351670

2023 Lingxiao Yang, Hui Zhen, Le Li, **Yuanning Li**, Han Zhang, Xiaohua Xie, Ru-Yuan Zhang. Functional diversity of visual cortex improves constraint-free natural image reconstruction from human brain activity. *Fundamental Research*, (2023), doi: https://doi.org/10.1016/j.fmre.2023.08.010

2023 **Yuanning Li**, Gopala K. Anumanchipalli, Abdelrahman Mohamed, Peili Chen, Laurel Carney, Junfeng Lu, Jinsong Wu, Edward Chang. Dissecting neural computations of the human auditory pathway using deep neural networks for speech. *Nature Neuroscience*, 26:12 (2023): 2213–2225, doi: https://doi.org/10.1038/s41593-023-01468-4

2023 Junfeng Lu#, **Yuanning Li#**, Zehao Zhao#, Yan Liu, Yanming Zhu, Ying Mao, Jinsong Wu, and Edward F. Chang. Neural Control of Lexical Tone Production in Human Laryngeal Motor Cortex. *Nature Communications*, 14:6917 (2023). doi: https://doi.org/10.1038/s41467-023-42175-9

2023 Emily P. Stephen, **Yuanning Li**, Sean Metzger, Yulia Oganian, Edward F. Chang. Latent neural dynamics encode temporal context in speech. *Hearing Research*, vol.437 (2023). doi: https://doi.org/10.1016/j.heares.2023.108838

2023 Yan Liu, Zehao Zhang, Minpeng Xu, Haiqing Yu, Yanming Zhu, Jie Zhang, Linhao Bu, Xiaoluo Zhang, Junfeng Lu*, **Yuanning Li***, Dong Ming, and Jinsong Wu*. Decoding and synthesizing tonal language speech from brain activity. *Science Advances* , 9:23 (2023). doi: https://doi.org/10.1126/sciadv.adh0478

2021 **Yuanning Li#**, Claire Tang#, Junfeng Lu#, Jinsong Wu, and Edward F. Chang. Human cortical encoding of pitch in tonal and non-tonal languages. *Nature Communications* , 12:1161 (2021). doi: https://doi.org/10.1038/s41467-021-21430-x

2020 **Yuanning Li***, Michael Ward, R. Mark Richardson, Max G'Sell, and Avniel Singh Ghuman. Endogenous activity modulates neural tuning and predicts perceptual behavior. *Nature Communications*, 11:4014 (2020). doi: https://doi.org/10.1038/s41467-020-17729-w

2018 **Yuanning Li***, R. Mark Richardson, and Avniel Singh Ghuman. Posterior Fusiform and Midfusiform Contribute to Distinct Stages of Facial Expression Processing. *Cerebral Cortex*. 29, no. 7 (2018): 3209-3219. doi: https://doi.org/10.1093/cercor/bhy186

2017 **Yuanning Li***, R. Mark Richardson, and Avniel Singh Ghuman. Multi-Connection Pattern Analysis: decoding the representational content of neural communication. *NeuroImage*. 162 (2017) pp. 32-44. doi: https://doi.org/10.1016/j.neuroimage.2017.08.033

2017 Hassan Albalawi, **Yuanning Li**, and Xin Li. Training Fixed-Point Classifiers for On-Chip Low-Power Implementation. *ACM Transactions on Design Automation of Electronic Systems (TODAES)*. 22, no. 4 (2017): 69. doi: https://doi.org/10.1145/3057275

2016 Elissa Aminoff, **Yuanning Li**, John Pyles, Michael Ward, R. Mark Richardson, Avniel Singh Ghuman. Associative hallucinations result from stimulating left ventral temporal cortex. *Cortex*. 83, (2016): 139-144. doi: https://doi.org/10.1016/j.cortex.2016.07.012

2016 Elizabeth Hirshorn#, **Yuanning Li#**, Michael Ward, R. Mark Richardson, Julie Fiez, and Avniel Singh Ghuman. Decoding and disrupting left midfusiform gyrus activity during word reading. *Proceedings of the National Academy of Sciences*. 113, no. 29 (2016): 8162-8167. doi: https://doi.org/10.1073/pnas.1604126113

2014 Avniel Singh Ghuman, Nicolas Brunet, **Yuanning Li**, Roma Konecky, John Pyles, Shawn Walls, Vincent Destefino, Wei Wang, and R. Mark Richardson. Dynamic encoding of face information in the human fusiform gyrus. *Nature Communications*. 5:5672 (2014), doi: https://doi.org/10.1038/ncomms6672

Peer-reviewed conference proceedings

2024 Linyang He, Peili Chen, Ercong Nie, **Yuanning Li**, Jonathan R. Brennan. Decoding Probing: Revealing Internal Linguistic Structures in Neural Language Models using Minimal Pairs. *In Proceedings of the 2024 Joint International Conference on Computational Linguistics, Language Resources and Evaluation (LREC-COLING 2024), pages 4488–4497*, preprint doi: https://aclanthology.org/2024.lrec-main.402

2024 Jiawei Li, Chunxu Guo, Li Fu, Lu Fan, Edward F. Chang, **Yuanning Li***. Neural2Speech: A Transfer Learning Framework for Neural-Driven Speech Reconstruction *2024 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2024, Oral)*, pp. 2200-2204. IEEE, doi: https://doi.org/10.1109/ICASSP48485.2024.10446614

2024 Peili Chen, Linyang He, Li Fu, Lu Fan, Edward F. Chang, **Yuanning Li***. Do self-supervised speech and language models extract similar representations as human brain? *2024 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2024, Oral)*, pp. 2225-2229. IEEE, 2024. doi: https://doi.org/10.1109/ICASSP48485.2024.10446334

2021 Huzheng Yang, Shanghang Zhang, Yifan Wu, **Yuanning Li***, & Shi Gu*. (2021). Effective ensemble of deep neural networks predicts neural responses to naturalistic videos. *Conference on Cognitive Computational Neuroscience (CCN 2021)*. doi: https://doi.org/10.1101/2021.08.24.457581

2014 Hassan Albalawi, **Yuanning Li**, and Xin Li. Computer-aided design of machine learning algorithm: training fixed-point classifier for on-chip low-power implementation. *Proceedings of the 51st ACM/EDAC/IEEE Design Automation Conference (DAC)*. 2014. doi: https://doi.org/10.1145/2593069.2593110

Book chapters

2020 Ashburn, S. M., *et al.* Toward a Socially Responsible, Transparent, and Reproducible Cognitive Neuroscience. In Poeppel, D., Mangun, G. R., & Gazzaniga, M. S. (Eds.). (2020). *The Cognitive Neurosciences* (6th Ed.). MIT Press.

Conferences and Workshops

Contributed talks

2024 **Yuanning Li**, Decoding and synthesizing natural speech of tonal language using electrocorticography, *53nd Annual Meeting of Society for Neuroscience (SfN 2024)*, Chicago, IL, 2024

2023 **Yuanning Li**, and Shi Gu, Enhancing neural encoding in naturalistic perception with a multi-level integration of deep neural networks and cortical networks, *52nd Annual Meeting of Society for Neuroscience (SfN 2023)*, Washington, D.C., 2023

2018 **Yuanning Li**, Michael Ward, R. Mark Richardson, Max G G'Sell and Avniel Singh Ghuman, Endogenous pre-stimulus activity modulates category tuning in ventral temporal cortex and influences behavior, *48th Annual Meeting of Society for Neuroscience (SfN 2018)*, San Diego, CA, 2018

2018 **Yuanning Li**, Michael Ward, R. Mark Richardson, Max G G'Sell and Avniel Singh Ghuman, Endogenous oscillatory activity modulates category tuning in ventral temporal cortex, *Vision Sciences Society Eighteenth Annual Meeting (VSS 2018)*, St. Pete Beach, FL, 2018.

2018 Matthew Boring, Edward Silson, **Yuanning Li**, Michael Ward, Christopher Baker, R. Mark Richardson, and Avniel Singh Ghuman, Interdigitation of words and faces in the ventral visual stream: reevaluating the spatial organization of category selective cortex using intracranial EEG, *Vision Sciences Society Eighteenth Annual Meeting (VSS 2018)*, St. Pete Beach, FL, 2018. (Talk given by Matthew Boring)

2016 **Yuanning Li**, Michael Ward, Witold Lipski, R. Mark Richardson, and Avniel Singh Ghuman, Neurodynamics of expression coding in the core face network, *46th Annual Meeting of Society for Neuroscience (SfN 2016)*, San Diego, CA, 2016

Poster presentations

2021 Emily Stephen, **Yuanning Li**, Sean Metzger, Yulia Oganian, and Edward Chang, Multivariate temporal receptive fields in speech perception reflect low-dimensional dynamics. *Computational and Systems Neuroscience (Cosyne 2021)*, 2021

2019 **Yuanning Li**, Claire Tang, Junfeng Lu, Jinsong Wu, and Edward Chang, Lexical tone processing in human superior temporal gyrus, *49th Annual Meeting of Society for Neuroscience (SfN 2019)*, Chicago, IL, 2019

2018 **Yuanning Li**, Michael Ward, R. Mark Richardson, Max G G'Sell, and Avniel Singh Ghuman, Endogenous pre-stimulus activity modulates category tuning in ventral temporal cortex and influences perceptual behavior, *2018 Conference on Cognitive Computational Neuroscience (CCN 2018)*, Philadelphia, PA, 2018

2017 **Yuanning Li**, Michael Ward, Witold Lipski, R. Mark Richardson, and Avniel Singh Ghuman, Neurodynamics of expression coding in the core face network, *Vision Sciences Society Seventeenth Annual Meeting (VSS 2017)*, St. Pete Beach, FL, 2017. doi: 10.1167/17.10.821

2016 **Yuanning Li**, and Avniel Singh Ghuman. Distributed information processing across OFA and FFA represents individual face identities, *Vision Sciences Society Sixteenth Annual Meeting (VSS 2016)*, St. Pete Beach, FL, 2016. doi: 10.1167/16.12.1232

2016 Avniel Singh Ghuman, **Yuanning Li**, Elizabeth Hirshorn, Julie Fiez, and R. Mark Richardson. Information processing dynamics in human category-selective fusiform gyrus, *Vision Sciences Society Sixteenth Annual Meeting (VSS 2016)*, St. Pete Beach, FL, 2016. doi: 10.1167/16.12.254

2015 **Yuanning Li** and Avniel Singh Ghuman. Multi-connection pattern analysis (MCPA): multivariate discriminant analysis of functional connectivity between neural populations, *45th Annual Meeting of Society for Neuroscience (SfN 2015)*, Chicago, IL, 2015

2015 Elissa Aminoff, **Yuanning Li**, John Pyles, Michael Ward, Gena Ghearing, R. Mark Richardson, Avniel Singh Ghuman. Stimulating Associations, *45th Annual Meeting of Society for Neuroscience (SfN 2015)*, Chicago, IL, 2015

2015 **Yuanning Li**, Elizabeth Hirshorn, Michael Ward, Roma Konecky, Ellyanna Kessler, Breana Gallagher, R. Mark Richardson, Julie Fiez, and Avniel Singh Ghuman. Decoding the temporal dynamics of left mid-fusiform gyrus activity during word reading, *Seventh International Workshop on Statistical Analysis of Neuronal Data (SAND7)*, Pittsburgh, PA, 2015

2014 **Yuanning Li**, Nicolas Brunet, Ellyanna Kessler and Avniel Singh Ghuman. Spatiotemporal analysis of human face individuation. *19th International Conference on Biomagnetism (BIOMAG)*, Halifax, Canada, 2014

Invited Talks

2024 "Understanding the shared coding of speech and language between DNN and brain", The 1st Chinese Conference on Brain-Machine Intelligence (ChinaBMI), Hangzhou, China

2024 "Neural coding, AI models and brain-computer interfaces of speech perception and production", Pujiang AI Conference, Shanghai, China

2024 "Understanding the shared coding of speech and language between DNN and brain", The 2nd Young Scholar Forum on Learning and Memory, Beijing, China

2024 "Neural coding, AI models and brain-computer interfaces of speech perception and production", 2nd Annual Conference on Network Neurosurgery, Beijing Tiantan Hospital, Beijing, China

2024 "Neural coding, AI models and brain-computer interfaces of speech perception and production", Shanghai Ninth People's Hospital, Shanghai, China

2024 "Encoding and decoding of natural speech using ECoG", 2024 Belt and Road International Conference on Advancing Population Brain Health through Brain-Apparatus Communication, China

2024 "Encoding and decoding of speech language information in the human brain with intracranial recordings", Institute of Psychology, China Academy of Sciences, Beijing, China

2024 "Human speech perception and self-supervised learning models", 2024 China Biomedical Engineering Conference and Medical Innovation Summit, Shenzhen, China

2024 "Neural coding, AI models and brain-computer interfaces of speech perception and production", Institute of Automation, Chinese Academy of Sciences, Beijing, China

2024 "Neural coding, AI models and brain-computer interfaces of speech perception and production", IDG/McGovern Institute for Brain Research, Tsinghua University, Beijing, China

2024 "Neural coding, AI models and brain-computer interfaces of speech perception and production", IDG/McGovern Institute for Brain Research, Peking University, Beijing, China

2024 "Enhancing neural encoding in naturalistic perception with a multi-level integration of deep neural networks and cortical networks", Vision and Learning Seminar (VALSE 2024), Chongqing, China

2024 "Invasive brain-computer interface: where are we now and where are we going?", Keynote talk, 10th MicroPort tech symposium, Shanghai, China

2023 "Encoding and decoding of speech language information in the human brain with intracranial recordings", CEBSIT/ION Forum: Frontiers in Advanced Cognition and Neural Computation, Shanghai, China

2023 "Encoding and decoding of speech language information in the human brain with intracranial recordings", The 2nd Symposium on Sensory Biology and Beyond, Shanghai, China

2023 "Encoding and decoding of speech language information in the human brain with intracranial recordings", The 4th International Workshop on Neural Engineering and Rehabilitation, Chengdu, China

2023 "Neural coding and computations underlying natural speech perception across languages", Forum on Neurolinguistics, Xuzhou, China

2023 "Encoding and decoding of speech language information in the human brain with intracranial recordings", The 16th Annual Meeting of Chinese Neuroscience Society, Zhuhai, China

2023 "Neural coding and AI models of human natural speech perception and production", The 8th CAAI Conference on Big Data and Social Computing, Urumqi, China

2023 "Encoding and decoding of speech language information in the human brain with intracranial recordings", CLASS Advanced Methods School, City University of Hong Kong, Hong Kong SAR

2023 "Encoding and decoding of speech language information in the human brain with intracranial recordings", Chinese Neuroscience Society Neuroimaging Annual Conference, Guangzhou, China

2023 "Encoding and decoding of speech language information in the human brain with intracranial recordings", Young Scholar Forum on Learning and Memory, Shanghai, China

2023 "Neural coding and computations underlying natural speech perception across languages", Invited seminar, Chinese Institute for Brain Research, Beijing, China

2023 "Neural coding and computations underlying natural speech perception across languages", Frontier of Life Science and Technology (FoLST2022), Shanghai, China

2022 "Dissecting neural computations of the human auditory pathway using deep neural networks for speech", Symposium on Biological Sensory and Sensory+, Shanghai, China

2021 "Understanding the neural computations in the human auditory pathway using deep neural networks", brAIn Seminar Series, Carnegie Mellon University, Pittsburgh, PA

2021 "Human cortical encoding of pitch in tonal and non-tonal languages", Xinqingnian Psychology Symposium, IDG/McGovern Institute, Peking University, Beijing, China (online)

2021 "Understanding the neural computations in the human auditory pathway using deep neural networks", Research Club Seminar, Department of Neurosurgery, University of Pittsburgh, Pittsburgh, PA (online)

2019 "Endogenous activity modulates stimulus and circuit-specific neural tuning and perception", Young Scholar Seminar Series, East China Normal University, Shanghai, China

2017 "Temporal dynamics of face and word processing in the human fusiform", Young Scholar Seminar Series, East China Normal University, Shanghai, China

Service

Editorial Board: PLOS Computational Biology, AI in Neuroscience

Ad-hoc Reviewer: Nature Communications, Science Advances, PNAS, Science Bulletin, PLOS Biology, eLife, NeuroImage, Cerebral Cortex, Journal of Neurophysiology, Journal of Neuroscience Methods, PLOS Computational Biology, PLOS One, Scientific Reports, Fundamental Research, IEEE Transactions on Biomedical Engineering (TBME), IEEE Transactions on Cognitive and Developmental Systems(TCDS), IEEE Journal of Biomedical and Health Informatics (JBHI), IEEE Transactions on Neural Systems and Rehabilitation Engineering (TNSRE), SCIENCE CHINA Information Sciences

Member: SfN Trainee Professional Development Awards (TPDA) Selection Committee

SfN International Travel Awards Selection Committee

Mentorship

Primary research supervisor:

Graduate students:

Jiawei Li, Ph.D. student in Computer Science, 2021 to present.

Shurui Li, Ph.D. student in Computer Science, 2022 to present.

Zhenjie Wang, Ph.D. student in Computer Science, 2022 to present.

Nanjun Ye, M.S. student in Biomedical Engineering, 2023 to present.

Shiji Xiang, M.S. student in Biomedical Engineering, 2023 to present.

Zheyu Jin, M.S. student in Biomedical Engineering, 2023 to present.

Peixi Yu, M.S. student in Biomedical Engineering, 2023 to present.

Pingping Yang, M.S. student in Biomedical Engineering, 2024 to present.

Yifei Bai, M.S. student in Biomedical Engineering, 2024 to present.

Peili Chen, M.S. in Biomedical Engineering, 2021 to 2024.

Undergraduate students:

Chunxu Guo, Bachelor in Biomedical Engineering, 2021 to 2022.
– Currently Ph.D. student at Washington University in St. Louis

Hanqing Zhao, Bachelor in Biomedical Engineering, 2022 to 2024.
– Currently Ph.D. student at Peking University/CIBR with Yunzhe Liu

Huayu Wang, Bachelor in Biological Sciences, 2023 to 2024.

Youran Mu, Bachelor in Biomedical Engineering, 2023 to present.

Mingzheng Wu, Bachelor in Computer Science, 2024 to present.

Yuxuan Hu, Bachelor in Biomedical Engineering, 2024 to present.

Research assistants:

Linyang He, Research assistant, 2021 to 2022.
– Currently Ph.D. student at Columbia University with Nima Mesgarani

Co-advised MD/PhD students at Huashan Hospital:

Yan Liu, MD '23, Fudan University.
– Coadvised with Jinsong Wu and Junfeng Lu

Zehao Zhao, MD '24, Fudan University.
– Coadvised with Jinsong Wu and Junfeng Lu

Daohan Zhang, MD student, Fudan University, 2022 to present.
– Coadvised with Jinsong Wu and Junfeng Lu

Youkun Qian, MD student, Fudan University, 2022 to present.
– Coadvised with Jinsong Wu and Junfeng Lu

Teaching

Instructor **BME2111/2127**, *ShanghaiTech University*, Shanghai, China.
Neural Signal Processing and Machine Learning (BME graduate course)
Offered on 2022 Fall, 2023 Fall, 2024 Fall

Instructor **BT2003**, *ShanghaiTech University*, Shanghai, China.
Neural Signal Acquisition and Artificial Intelligence Technology (BME graduate course)
Offered on 2023 Summer, 2024 Summer

Instructor **BME1106**, *ShanghaiTech University*, Shanghai, China.
Biomedical Signals and Systems II (BME undergraduate course)
Offered on 2023 Spring, 2024 Spring

Teaching Assistant **10-708**, *Carnegie Mellon University*, Pittsburgh, PA.
Probabilistic Graphical Models (Machine Learning Ph.D. core course)
2018 Spring

Teaching Assistant **Summer course**, *Center for the Neural Basis of Cognition, CMU-Pitt*.
Summer course for the undergraduate program in neural computation (uPNC)
2016 Summer

Teaching Assistant **18-202**, *Carnegie Mellon University*, Pittsburgh, PA.
Mathematical Foundations of Electrical Engineering (ECE undergraduate course)
2013 Spring

References

Edward F. Chang, *edward.chang@ucsf.edu*.
Professor, University of California San Francisco

Avniel Singh Ghuman, *ghumana@upmc.edu*.
Associate Professor, University of Pittsburgh

R. Mark Richardson, *mark.richardson@mgh.harvard.edu*.
Associate Professor, Harvard Medical School

Robert E. Kass, *kass@stat.cmu.edu*.
Professor, Carnegie Mellon University

Dinggang Shen, *dgshen@shanghaitech.edu.cn*.
Professor, ShanghaiTech University