



## Shengtian Sang

Postdoctoral Scholar, Radiology

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#### BIO

Shengtian Sang is currently a post-doctoral scholar at the Laboratory of Artificial Intelligence in Medicine and Biomedical Physics in the department of Radiation Oncology at Stanford University. He received his Ph.D. degree from the College of Computer Science and Technology, Dalian University of Technology, Dalian, China. His current research interests are high-dimensional data mining, medical image computing, and machine learning. In his Ph.D. study, he worked on the biomedical literature-based discovery and data mining.

#### STANFORD ADVISORS

- Mirabela Rusu, Postdoctoral Faculty Sponsor

### Publications

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#### PUBLICATIONS

- **Biology-aware mutation-based deep learning for outcome prediction of cancer immunotherapy with immune checkpoint inhibitors.** *NPJ precision oncology*  
Liu, J., Islam, M. T., Sang, S., Qiu, L., Xing, L.  
2023; 7 (1): 117
- **Biology-guided deep learning predicts prognosis and cancer immunotherapy response.** *Nature communications*  
Jiang, Y., Zhang, Z., Wang, W., Huang, W., Chen, C., Xi, S., Ahmad, M. U., Ren, Y., Sang, S., Xie, J., Wang, J. Y., Xiong, W., Li, et al  
2023; 14 (1): 5135
- **Non-invasive tumor microenvironment evaluation and treatment response prediction in gastric cancer using deep learning radiomics.** *Cell reports. Medicine*  
Jiang, Y., Zhou, K., Sun, Z., Wang, H., Xie, J., Zhang, T., Sang, S., Islam, M. T., Wang, J. Y., Chen, C., Yuan, Q., Xi, S., Li, et al  
2023: 101146
- **Leveraging data-driven self-consistency for high-fidelity gene expression recovery.** *Nature communications*  
Islam, M. T., Wang, J., Ren, H., Li, X., Khuzani, M. B., Sang, S., Yu, L., Shen, L., Zhao, W., Xing, L.  
2022; 13 (1): 7142
- **Small-Object Sensitive Segmentation Using Across Feature Map Attention.** *IEEE transactions on pattern analysis and machine intelligence*  
Sang, S., Zhou, Y., Islam, M. T., Xing, L.  
2022; PP
- **A Scalable Embedding Based Neural Network Method for Discovering Knowledge From Biomedical Literature** *IEEE-ACM TRANSACTIONS ON COMPUTATIONAL BIOLOGY AND BIOINFORMATICS*  
Sang, S., Liu, X., Chen, X., Zhao, D.  
2022; 19 (3): 1294-1301

- **Biology-guided deep learning predicts prognosis and cancer immunotherapy response** *Society for Immunotherapy of Cancer's (SITC) 37th Annual Meeting*  
Jiang, Y., Zhang, Z., Wang, W., Huang, W., Chen, C., Xi, S., Ahmad, M., Ren, Y., Sang, S., Xie, J., Xiong, W., Li, T., Han, et al  
2022
- **Type 1 Diabetes Management With Technology: Patterns of Utilization and Effects on Glucose Control Using Real-World Evidence.** *Clinical diabetes : a publication of the American Diabetes Association*  
Sun, R., Banerjee, I., Sang, S., Joseph, J., Schneider, J., Hernandez-Boussard, T.  
2021; 39 (3): 284-292
- **Geometric resistant polar quaternion discrete Fourier transform and its application in color image zero-hiding.** *ISA transactions*  
Wang, C., Ma, B., Xia, Z., Li, J., Li, Q., Liu, X., Sang, S.  
2021
- **Learning from Past Respiratory Failure Patients to Triage COVID-19 Patient Ventilator Needs: A Multi-Institutional Study.** *Journal of biomedical informatics*  
Carmichael, H., Coquet, J., Sun, R., Sang, S., Groat, D., Asch, S. M., Bledsoe, J., Peltan, I. D., Jacobs, J. R., Hernandez-Boussard, T.  
2021: 103802
- **Learning from past respiratory infections to predict COVID-19 Outcomes: A retrospective study.** *Journal of medical Internet research*  
Sang, S. n., Sun, R. n., Coquet, J. n., Carmichael, H. n., Seto, T. n., Hernandez-Boussard, T. n.  
2021