Stanford

Jiankai Sun

Ph.D. Student in Aeronautics and Astronautics, admitted Autumn 2022

Bio

PROFESSIONAL AFFILIATIONS AND ACTIVITIES

- Member, IEEE (2022 - present)

Publications

PUBLICATIONS

- **GRAD-NAV++: Vision-Language Model Enabled Visual Drone <underline>Nav</underline>igation With <underline>G</underline>aussian <underline>Ra</underline>diance Fields and <underline>D</underline>ifferentiable Dynamics** *IEEE ROBOTICS AND AUTOMATION LETTERS*
  Chen, Q., Gao, N., Huang, S., Low, J., Chen, T., Sun, J., Schwager, M.
  2026; 11 (2): 1418-1425

- **Foundation models in robotics: Applications, challenges, and the future** *INTERNATIONAL JOURNAL OF ROBOTICS RESEARCH*
  Firoozi, R., Tucker, J., Tian, S., Majumdar, A., Sun, J., Liu, W., Zhu, Y., Song, S., Kapoor, A., Hausman, K., Ichter, B., Driess, D., Wu, et al
  2024

- **Localization and recognition of human action in 3D using transformers.** *Communications engineering*
  Sun, J., Huang, L., Wang, H., Zheng, C., Qiu, J., Islam, M. T., Xie, E., Zhou, B., Xing, L., Chandrasekaran, A., Black, M. J.
  2024; 3 (1): 125

- **Open X-Embodiment: Robotic Learning Datasets and RT-X Models**
  O'Neill, A., Rehman, A., Gupta, A., Maddukuri, A., Gupta, A., Padalkar, A., Lee, A., Pooley, A., Gupta, A., Mandlekar, A., Jain, A., Tung, A., Bewley, et al
  IEEE.2024: 6892-6903

- **Large AI Models in Health Informatics: Applications, Challenges, and the Future.** *IEEE journal of biomedical and health informatics*
  Qiu, J., Li, L., Sun, J., Peng, J., Shi, P., Zhang, R., Dong, Y., Lam, K., Lo, F. P., Xiao, B., Yuan, W., Wang, N., Xu, et al
  2023; 27 (12): 6074-6087

- **NeRF-Loc: Transformer-Based Object Localization Within Neural Radiance Fields** *IEEE ROBOTICS AND AUTOMATION LETTERS*
  Sun, J., Xu, Y., Ding, M., Yi, H., Wang, C., Wang, J., Zhang, L., Schwager, M.
  2023; 8 (8): 5244-5250

- **Connected Autonomous Vehicle Motion Planning with Video Predictions from Smart, Self-Supervised Infrastructure**
  Sun, J., Kousik, S., Fridovich-Keil, D., Schwager, M., IEEE
  IEEE.2023: 1721-1726

- **MimicPlay: Long-Horizon Imitation Learning by Watching Human Play**
  Wang, C., Fan, L., Sun, J., Zhang, R., Li Fei-Fei, Xu, D., Zhu, Y., Anandkumar, A.
  edited by Tan, J., Toussaint, M., Darvish, K.
  JMLR-JOURNAL MACHINE LEARNING RESEARCH.2023

- **Conformal Prediction for Uncertainty-Aware Planning with Diffusion Dynamics Model**
  Sun, J., Jiang, Y., Qiu, J., Nobel, P., Kochenderfer, M., Schwager, M.
  edited by Oh, A., Neumann, T., Globerson, A., Saenko, K., Hardt, M., Levine, S.

NEURAL INFORMATION PROCESSING SYSTEMS (NIPS).2023

- **Egocentric Human Trajectory Forecasting With a Wearable Camera and Multi-Modal Fusion** *IEEE ROBOTICS AND AUTOMATION LETTERS*
  Qiu, J., Chen, L., Gu, X., Lo, F., Tsai, Y., Sun, J., Liu, J., Lo, B.
  2022; 7 (4): 8799-8806
- **PlaTe: Visually-Grounded Planning With Transformers in Procedural Tasks** *IEEE ROBOTICS AND AUTOMATION LETTERS*
  Sun, J., Huang, D., Lu, B., Liu, Y., Zhou, B., Garg, A.
  2022; 7 (2): 4924-4930
- **Self-Supervised Traffic Advisors: Distributed, Multi-view Traffic Prediction for Smart Cities**
  Sun, J., Kousik, S., Fridovich-Keil, D., Schwager, M., IEEE
  IEEE.2022: 917-922
- **Adversarial Inverse Reinforcement Learning With Self-Attention Dynamics Model** *IEEE ROBOTICS AND AUTOMATION LETTERS*
  Sun, J., Yu, L., Dong, P., Lu, B., Zhou, B.
  2021; 6 (2): 1880–86