Shaohua Dong

Department of Computer Science and Engineering, University of North Texas
Room F232, Discovery Park, 3940 N Elm St, Denton, TX 76207
Homepage Google Scholar
shaohuadong@my.unt.edu

RESEARCH INTERESTS

Video understanding, Visual object tracking and Semantic segmentation

EDUCATION

- **University of North Texas** — Denton, US
  Phd Student, under the supervision of Prof. Heng Fan — *Jan 2023 - Present*

- **Zhejiang University of Science and Technology** — Hangzhou, China
  Master in mechanical engineering, under the supervision of Prof. Wujie Zhou; GPA: 3.90 — *Sep 2020 - Jan 2023*

- **Ludong University** — Yantai, China
  Bachelor of Electrical Engineering and Automation; GPA: 3.70 — *Sep 2016 - June 2020*

EXPERIENCE

- **Visting student, Southern University of Science and Technology** — Shenzhen, China
  Advisor: Dr. Feng Zheng — *June 2022 - Sep 2022*

PROJECTS

- **Research project, Toyota** — Denton, US
  BEV Detection and Segmentation. — *Aug 2023 - Aug 2024*

PUBLICATIONS

[†]Master advisor [⋆]Equal contribution

- Sourabh Yadav, Thanh Le, **Shaohua Dong**, Heng Fan, Qing Yang, Chenxi Qiu, Yan Huang, "A new simulation platform for learning-empowered distributed sensing," *Synthetic Data for Artificial Intelligence and Machine Learning: Tools, Techniques, and Applications II*, 2024.

- Jashia Mitayeegiri, **Shaohua Dong**, Chenxi Qiu, Qing Yang, Xinrong Li, Heng Fan, Yan Huang, "Radio Map Estimation (RME) with Deep Progressive Network," in *International Conference on Multimedia Information Processing and Retrieval (MIPR)*, 2024.

- **Shaohua Dong**, Yunhe Feng, Qing Yang, Yuewei Lin, Heng Fan, "LoReTrack: Efficient and Accurate Low-Resolution Transformer Tracking," in *arXiv preprint arXiv:2405.17660*, 2024.

- Yunhao Li, Hao Wang, Xue Ma, Jiali Yao, **Shaohua Dong**, Heng Fan, Libo Zhang, "Beyond MOT: Semantic Multi-Object Tracking," in *European Conference on Computer Vision (ECCV)*, 2024.

- Liang Peng[⋆], Junyuan Gao[⋆], Xinran Liu[⋆], Weihong Li[⋆], **Shaohua Dong**[⋆], Zhipeng Zhang, Heng Fan, Libo Zhang, "VastTrack: Vast Category Visual Object Tracking," in *Advances in Neural Information Processing Systems (NeurIPS)*, 2024.

- **Shaohua Dong**, Yunhe Feng, Qing Yang, Yan Huang, Dongfang Liu, Heng Fan, "Efficient Multimodal Semantic Segmentation via Dual-Prompt Learning," in *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2024. (**Oral**)

- Wujie Zhou[†], **Shaohua Dong**, Meixin Fang, Lu Yu, "CACFNet: Cross-modal attention cascaded fusion network for RGB-T urban scene parsing," *IEEE Transactions on Intelligent Vehicles*, 2023.

- **Shaohua Dong**, Wujie Zhou[†], Caie Xu, Weiqing Yan, "EGFNet: Edge-aware guidance fusion network for RGB–thermal urban scene parsing," *IEEE Transactions on Intelligent Transportation Systems*, 2023.

- Wujie Zhou[†], **Shaohua Dong**, Caie Xu, Yaguan Qian, "Edge-aware guidance fusion network for RGB–thermal scene parsing," in *Thirty-Sixth AAAI Conference on Artificial Intelligence (AAAI)*, 2022.

- Wujie Zhou[†], **Shaohua Dong**, Jingsheng Lei, and Lu Yu, "MTANet: Multitask-Aware Network with Hierarchical Multimodal Fusion for RGB-T Urban Scene Understanding," *IEEE Transactions on Intelligent Vehicles*, doi: 10.1109/TIV.2022.3164899.

- **Shaohua Dong**, Wujie Zhou[†], Xiaohong Qian, Lu Yu, "Graph-Enhancement Branch Network for RGB-T Scene Parsing," 2022, *IEEE Signal Processing Letters*, doi: 10.1109/LSP.2022.3219350.

PROFESSIONAL ACTIVITIES

Reviewer

- The Thirteenth International Conference on Learning Representations (ICLR), 2025
- Thirty-eighth Annual Conference on Neural Information Processing Systems (NeurIPS), 2024
- IEEE Winter Conference on Applications of Computer Vision (WACV), 2024, 2025
- Women in Computer Vision Workshop at ECCV 2024
- International Conference on Computer Science and Application Engineering (CSAE), 2023
- IEEE International Conference on Advanced Video and Signal-Based Surveillance (AVSS), 2024
- IEEE 7th International Conference on Multimedia Information Processing and Retrieval (MIPR), 2024
- International Conference on Life System Modeling and Simulation (LSMS), 2024
- International Conference on Intelligent Computing for Sustainable Energy and Environment (ICSEE), 2024
- IEEE Robotics and Automation Letters (R-AL)
- IEEE Transactions on Geoscience and Remote Sensing (TGRS)
- IEEE Geoscience and Remote Sensing Letters (GRSL)
- IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing (JSTARS)
- IEEE Transactions on Intelligent Vehicles (T-IV)
- International Journal of Remote Sensing (IJRS/RSL)
- IEEE Transactions on Instrumentation and Measurement (TIM)
- IEEE International Joint Conference on Biometrics (IJCB)

HONORS AND AWARDS

- Postgraduate First-class Academic Scholarship in the academic year of 2021 - 2022.
- Merit Student in the academic year of 2021 - 2022.
- Postgraduate Second-class Academic Scholarship in the academic year of 2020 - 2021.

PROGRAMMING SKILLS

- C/C++, Python, Matlab