Shu Yan

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🌐 http://Shuyansy.github.io/

Profile

- Postgraduate in Computer Science from Harbin Institute of Technology, excellent international outlook with abundant theoretical knowledge and hands-on experience on computer vision, scene text detection, multi-modal learning, strong interests in related areas.

- Self-motivated and detail-oriented, high sensitivity on artificial intelligence, familiar with related methods on computer vision with outstanding communication skills in team work; collaborated with 2 enterprises and 2 domestic lab, possessed 2 patents and 6 thesis had been published.

Education

2017 – 2021 **B.S., University of International Relations** Faculty of Cyber Science and Technology.
Thesis title: *An End-to-end Text Spotter with Combination of Visual and Language Features*
GPA: 3.75/4.0 (Top 5%)

2021 – 2023 **MA.Eng., Harbin Institute of Technology** Faculty of Computing.
Thesis title: *Text Detection Methodology based on Semantic Enhancement and Its Application in Video Understanding.*
Average Score: 86/100 (Top 10%)

Honor

2018 National Encouragement scholarship (Top 3%)

2019 1st class Honor (Department-level, Top 15%)

2020 1st class Honor (School-level, Top 10%)

2021 Outstanding Dissertation Award (Beijing Province)

2022 2^{ed} class Honor (School-level, Top 15%)

2023 1st class Honor (School-level, Top 10%)

Outstanding Graduate (School-level)

Accepted Publications

1. Y. Shu, W. Wang, Y. Zhou, *et al.*, "Perceiving ambiguity and semantics without recognition: An efficient and effective ambiguous scene text detector," in *Proceedings of the 31th ACM International Conference on Multimedia (ACM MM)*, 2023.

2. Y. Shu, S. Liu, Y. Zhou, H. Xu, and F. Jiang, "Ei2sr: Learning an enhanced intra-instance semantic relationship for arbitrary-shaped scene text detection," in *IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, 2023.

3. Y. Shu, S. Liu, H. Xu, and F. Jiang, *Read pointer meters in complex environments based on a human-like alignment and recognition algorithm*, 2023. arXiv: 2302.14323 [cs.CV].

4 Y. Mi, Y. Shu, H. Xu, S. Liu, and F. Jiang, "Vva: Video values analysis," in *The 6th Chinese Conference on Pattern Recognition and Computer Vision (PRCV)*, 2023.

5 H. Xu, S. Liu, Y. Shu, and F. Jiang, "A progressive image dehazing framework with inter and intra contrastive learning," in *IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, 2023.

6 H. Xu, S. Liu, Y. Shu, and F. Jiang, "Uformer++: Light uformer for image restoration," in *Proceedings of the 30th International Conference on Neural Information Processing (ICONIP)*, 2023.

Reviewing Publications

1 Y. Shu, Y. Li, B. Li, and X. Zhen, "Textlinker: Learning self-correcting component connectivity for arbitrary-shaped text detection," *IEEE Transactions on Image Processing (TIP)*,

2 Y. Shu, Y. Li, B. Zhang, and D. David, "Character can speak directly: An end-to-end character region excavation network for scene text spotting," *Neurocomputing*,

Project Experience

2021   **Automatic Inspection of Robot Instrument**. Collaborated with Boshi Automation Co., Ltd to develop an accurate and efficient meter recognition system.

Biomedial Image Recognition. Involved in Institute of Automation, Chinese Academy of Sciences to advance the research on biomedicine imge recognition and processing under the guidance from Professor Yang Ge.

2022   **Video Understanding Project (National key project)**. Collaborated with People's Daily Online to develop a system for video Values Analysis.

2023   **Scene Text Detection and Recognition Engine**. Involved in Institute of Information Engineering, Chinese Academy of Sciences to advance the research on scene text detection, spotting and processing under the guidance from Associate Professor Yu Zhou.

Skills

Languages   Strong reading, writing and speaking competencies for English, Mandarin Chinese
CET-4, CET-6, TEM-4
IELTS 7.5 (Listening 7.0, Reading 8.5, Speaking 7.0, Writing 6.5)

Coding   Python (Pytorch), C++, Java, LaTeX, …