Yimian Dai, PhD Student

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https://scholar.google.com/citations?user=y50v6VAAAAAJ

Education

2015 – 2020 PhD, Nanjing University of Aeronautics & Astronautics in Electronic Engineering

2013 – 2015 MEng, Nanjing University of Aeronautics & Astronautics in Electronic Engineering

2009 – 2013 **BEng, Nanjing University of Aeronautics & Astronautics** in Electronic Engineering

Experience

2018.10 - 2020.10

Joint PhD Student, University of Arizona, working with Prof. Kobus Barnard.

2018.03 - 2018.09

Joint PhD Student, University of Copenhagen, working with Prof. Fabian Gieseke.

Selected Publications

Conference Proceedings

- **Dai, Y.**, Gieseke, F., Oehmcke, S., Wu, Y., & Barnard, K. (2021). Attentional Feature Fusion, In *IEEE Winter Conference on Applications of Computer Vision (WACV 2021)*.
- **Dai**, Y., Wu, Y., Zhou, F., & Barnard, K. (2021). Asymmetric Contextual Modulation for Infrared Small Target Detection, In *IEEE Winter Conference on Applications of Computer Vision (WACV 2021*).
- **Dai**, Y., Oehmcke, S., Gieseke, F., Wu, Y., & Barnard, K. (2020). Attention as Activation, In 25th International Conference on Pattern Recognition (ICPR 2020), oral presentation.

Journal Articles

- **Dai, Y.**, Wu, Y., Zhou, F., & Barnard, K. (2020). Attentional Local Contrast Networks for Infrared Small Target Detection. *Accepted by IEEE Transactions on Geoscience and Remote Sensing*.
- **Dai**, Y., & Wu, Y. (2017). Reweighted Infrared Patch-Tensor Model with Both Nonlocal and Local Priors for Single-Frame Small Target Detection. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, 10(8), 3752–3767.
- **Dai, Y.**, Wu, Y., Song, Y., & Guo, J. (2017). Non-Negative Infrared Patch-Image Model: Robust Target-Background Separation via Partial Sum Minimization of Singular Values. *Infrared Physics & Technology*, 81, 182–194.
- **Dai**, Y., Wu, Y., & Song, Y. (2016). Infrared Small Target and Background Separation via Column-Wise Weighted Robust Principal Component Analysis. *Infrared Physics & Technology*, 77, 421–430.
- Song, Y., Wu, Y., & **Dai**, **Y.** (2016). A New Active Contour Remote Sensing River Image Segmentation Algorithm Inspired from the Cross Entropy. *Digital Signal Processing*, 48, 322–332.

Awards and Achievements

2018 Scholarship of Joint PhD Student, China Scholarship Council.

2017 Outstanding Youth Exchange Program, China Association for Science and Technology.

2014 **Hella Scholarship**, Hella Company & Nanjing University of Aeronautics and Astronautics.

- Award of Innovation Team, Team Leader, Nanjing University of Aeronautics and Astronautics.
- Graduate Innovation Funding, Nanjing University of Aeronautics and Astronautics.