Hongcheng Han

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http://hongchenghan.github.io



# **Biography**

Hongcheng Han received the degree of B.Eng. in the School of Energy and Power Engineering, Xi'an Jiaotong University, Xi'an, China in 2020. Since then, he is studying for Ph.D. degree in the Institute of Artificial Intelligence and Robotics, Xi'an Jiaotong University. His interests focus on AI-based medical image analysis.

# Education

2022 – now	<b>Ph.D. Candidate, Control Science and Engineering</b> Institute of Artificial Intelligence and Robotics, Xi'an Jiaotong University, Xi'an, China
2020 - 2022	<b>M.Eng., Software Engineering</b> School of Software Engineering, Xi'an Jiaotong University, Xi'an, China
2016 – 2020	<b>B.Eng., Energy and Power Engineering</b> College of Energy and Power Engineering, Xi'an Jiaotong University, Xi'an, China

## **Research Publications**

#### **Journal Articles**

**H. Han**, Z. Tian, Q. Guo, J. Jiang, J. Wang, and S. Du, "B-ultrasound-to-elastography translation via hierarchical structural consistency learning for thyroid cancer diagnosis," *IEEE Journal of Biomedical and Health Informatics*, 2024, (Accepted).

**H. Han**, Y. Lin, Q. Guo, *et al.*, "Dermoscopic image classification for multi-modal medical corpus," *Journal of Northwest University (Natural Science Edition)*, vol. 53, no. 3, pp. 2817–2830, 2023.

X. Wang<sup>#</sup>, **H. Han<sup>#</sup>**, M. Xu, *et al.*, "STNet: Shape and texture joint learning through two-stream network for knowledge-guided image recognition," *Frontiers in Neuroscience*, vol. 17, p. 1 212 049, 2023, (Co-first author and student first author).

D. Zhang<sup>#</sup>, **H. Han**<sup>#</sup>, S. Du, *et al.*, "MPMR: Multi-scale feature and probability map for melanoma recognition," *Frontiers in Medicine*, vol. 8, p. 775 587, 2022, (Co-first author).

### **Conference Proceedings**

- H. Han, Z. Tian, Q. Guo, J. Jiang, J. Wang, and S. Du, "HSC-T: B-ultrasound-to-elastography translation via hierarchical structural consistency learning for thyroid cancer diagnosis," in *IEEE-EMBS International Conference on Biomedical and Health Informatics (BHI)*, (Accepted, oral presentation), IEEE, 2024. *O* URL: https://openreview.net/forum?id=EwSohBIcje.
- 2 H. Han, Z. Tian, Y. Liu, S. Li, D. Zhang, and S. Du, "Gsa-gaze: Generative self-adversarial learning for domain generalized driver gaze estimation," in *2023 IEEE 26th International Conference on Intelligent Transportation Systems (ITSC)*, (One of the most influential conferences identified by Xi 'an Jiaotong University), IEEE, 2023, pp. 1610–1615.
- **H. Han**, S. Du, D. Zhang, H. Long, and Y. Guo, "Precise dental staging method through panoramic radiographs based on deep learning," in *2020 Chinese Automation Congress (CAC)*, IEEE, 2020, pp. 377–386.

## Skills

Languages	Good reading, writing and speaking competencies for English and Mandarin Chinese.
Research	Machine learning algorithm design, digital image processing.
Coding	Python, Pytorch, OpenCV, Scikit-learn, Jupyter notebook, LATEX.
Misc.	Graphic design, video editing, 3D modeling.

## Awards and Achievements

#### Awards in Science and Technology

2021		<b>2</b> <sup><i>nd</i></sup> <b>Prize</b> , Asia and Pacific Mathematical Contest in Modeling (APMCM).
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- 2019 **Overall Championship**, SAE International College Aircraft Design Competition (Micro Class).
- 2017 **I**<sup>st</sup> **Prize**, China International Aircraft Design Challenge (CADC).

### Awards in Innovation and Entrepreneurship

- 2024 **Z**<sup>*nd*</sup> **Prize**, 19th China Graduate Student Electronic Design Competition Business Plan Special Competition.
- 2021 **I**<sup>st</sup> **Prize**, 16th China Graduate Student Electronic Design Competition Business Plan Special Competition.
  - **3**<sup>*rd*</sup> **Prize**, 9th Xi'an Jiaotong University Entrepreneurship Practice Competition.

#### **Scholastic Achievements**

2024	Outstanding Student Award, Xi'an Jiaotong University.
	1 <sup>st</sup> -class Academic Scholarship, Xi'an Jiaotong University.
2023	1 <sup>st</sup> -class Academic Scholarship, Xi'an Jiaotong University.
2022	1 <sup>st</sup> -class Academic Scholarship, Xi'an Jiaotong University.
2021	Outstanding Student Award, Xi'an Jiaotong University.
	1 <sup>st</sup> -class Academic Scholarship, Xi'an Jiaotong University.
2020	1 <sup>st</sup> -class Freshman Scholarship, Xi'an Jiaotong University.