

# HAIWEN HUANG

DEDICATED TO DEVELOPING SAFE, ROBUST, AND RESPONSIBLE AI TECHNOLOGIES THAT ENRICH OUR WORLD  
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## EDUCATION

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**University of Tübingen, Tübingen, Germany** Jan. 2022 – June 2026 (expected)

**PhD candidate** in Computer Vision

- Autonomous Vision Group, Bosch Industry-on-Campus lab
- Supervisor: Andreas Geiger, Dan Zhang
- PhD topic: Open-world recognition in complex scenes

**University of Oxford, Oxford, UK**

Oct. 2020 – Sept. 2021

**Master of Science** in Computer Science

- **Distinction**
- Dissertation: “On Representation Learning for Deterministic Uncertainty Estimation”
- Supervisor: Yarin Gal

**Peking University, Beijing, China**

Sept. 2015 – July 2019

**Bachelor of Science** in Computational Mathematics

- Cumulative GPA: 3.73/4.00, Major GPA: 3.80/4.00
- **Outstanding Graduate of Beijing** (top 1% in the university)
- Advisor: Bin Dong

**University of California, Los Angeles, USA**

Sept. 2017 – Feb. 2018

Exchange Student in Department of Statistics

- CSC Scholarship Recipient
- GPA: 4.0/4.0
- Advisor: Yingnian Wu, Songchun Zhu

## WORK EXPERIENCE

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**Google Research**

July 2025 - Oct. 2025

- **Student Researcher**
- Advisor: Yongqin Xian, Alessio Tonioni, Federico Tombari
- Project: Improving video reasoning abilities of multimodal LLMs

**Megvii Research, Beijing, China**

July 2019 – Sept. 2020

- **Research scientist** in Face Recognition Team
- Advisor: Xinyu Zhou
- Project: Billion-scale face recognition data annotation. Out-of-distribution detection for facial data.

## SELECTED PUBLICATIONS

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1. **Haiwen Huang**, Anpei Chen, Volodymyr Havrylov, Andreas Geiger, Dan Zang. “*LoftUp: Learning a Coordinate-Based Feature Upsampler for Vision Foundation Models*” ICCV 2025 (**oral**).
  2. **Haiwen Huang**, Songyou Peng, Dan Zhang, Andreas Geiger. “*Renovating Names in Open-Vocabulary Segmentation Benchmarks*” NeurIPS 2024
  3. **Haiwen Huang**, Andreas Geiger, and Dan Zhang. “*GOOD: Exploring geometric cues for detecting objects in an open world.*” ICLR 2023
  4. **Haiwen Huang**, Zhihan Li, Lulu Wang, Sishuo Chen, Xinyu Zhou, Bin Dong, “*Feature Space Singularity for Out-of-distribution Detection.*” (**Best Paper Runner-Up**) Safe AI 2021.

5. **Haiwen Huang**, Chang Wang, and Bin Dong. “*Nostalgic Adam: Weighting More of the Past Gradients when Designing the Adaptive Learning Rate.*” IJCAI 2019.

## HIGHLIGHTS OF TECHNICAL SKILLS

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- **Machine Learning Frameworks:** Proficient with PyTorch, TensorFlow, NumPy, Scikit-learn, Hugging Face, Gradio, and more.
- **Computer Vision:** Experience in tasks including image classification, object detection, (interactive) segmentation, depth/normal estimation, video object segmentation, and object tracking.
- **Vision & Multimodal Models:** Familiar with state-of-the-art models such as Mask2Former, DINOv2, CLIP, SigLIP, Stable Diffusion, Flux, among others, and with various LLMs such as Qwen, InternVL, GPT-4 and Gemini for text & multimodal tasks.
- **Parameter-Efficient Fine-Tuning:** Skilled in techniques like LoRA variants, ControlNet, and T2I adapters for fine-tuning foundation models, including Stable Diffusion and DINOv2.
- **Data-Centric Model Evaluation & Development:** Contributed to projects involving data collection, augmentation, and synthesis, and evaluation of foundation models on various vision-language tasks such as VQA and open-voc segmentation, with a focus on robustness and explainability.

## SELECTED AWARDS AND HONORS

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**NeurIPS 2024 Top Reviewer Award.** Top 10% reviewers in NeurIPS 2024.

**Outstanding Graduate of Beijing.** The highest honor for graduates in Beijing. Top 1% in university. 2019

**Yang Fuqing & Wang Yangyuan Academician Scholarship.** Top 1% in academic merit and potential. 2016