

# Isaac Zhang

PHD CANDIDATE · MACHINE LEARNING · COMPUTER VISION

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“Stay Hungry. Stay Foolish.”

## Summary

Isaac is a highly motivated and results-oriented PhD candidate with a strong academic background in Machine Learning, Computer Vision, and Computing Science. Proven research experience in 3D scene reconstruction, Vision-Language Models, and novel algorithm development. Possessing a diverse skill set in ML frameworks, programming languages, and development tools, with practical experience in data analysis and software development. Eager to apply advanced technical skills and research acumen to challenging problems in innovative environments.

## Research

### PhD Research Topic: 3D-aware Vision-Language Models

Australian National University

OCT. 2023 - PRESENT

Supervisor: Prof. Hongdong Li

- Research on 3D visual question answering and spatial reasoning, developing multimodal models to interpret and reason about 3D scenes.

### Super Map GIS Co., Ltd

Chengdu, China

RESEARCH ASSISTANT

Sep. 2023 - Dec. 2023

- Utilized NeRF models and advanced neural rendering techniques to synthesize novel viewpoints and enhance visual experiences.

### Master's Research Topic: Indoor 3D Reconstruction

Australian National University

AUG. 2022 - AUG. 2023

Supervisor: Prof. Hongdong Li

- Aimed to reconstruct complete 3D scenes using only RGB images, achieving state-of-the-art performance.

## Publications

- C. ZHANG**, J. Tong, T. J. Lin, C. Nguyen, and H. Li, “Pmvc: Promoting multi-view consistency for 3d scene reconstruction,” in *Proceedings of the IEEE/CVF winter conference on applications of computer vision, 2024*, pp. 3678–3688.

## Work Experience

### H3C Technologies Co., Ltd

Chengdu, China

DATA ANALYST (INTERN)

Aug. 2020 - Oct. 2020

- Cleansed, processed, and modeled data to extract valuable insights.
- Informed strategic decisions by organizing and visualizing complex datasets.

### CIB Digital Financial Service Co., Ltd

Chengdu, China

FRONT-END DEVELOPER (INTERN)

Jun. 2020 - Jul. 2020

- Developed responsive front-end webpages and robust back-end databases based on company requirements.
- Contributed to the development of a core banking operation system using Java.

## Education

### Australian National University

Canberra, Australia

DOCTOR OF PHILOSOPHY IN COMPUTER VISION (THESIS: VISION-LANGUAGE MODELS)

Mar. 2024 - Present

- ANU College of Engineering, Computing and Cybernetics

## Australian National University

MASTER OF MACHINE LEARNING AND COMPUTER VISION (THESIS: 3D RECONSTRUCTION)

- GPA: 6.5/7.0
- Completed a Master's Thesis with High Distinction

Canberra, Australia

Aug. 2021 - Jul. 2023

## University of Alberta

BACHELOR OF SCIENCE IN COMPUTING SCIENCE (THESIS: BACKGROUND SUBTRACTION)

- GPA: 3.3/4.0
- Specialization degree (Equivalent to Honours degree in Australia)

Edmonton, Canada

Sep. 2017 - Jul. 2021

## Honors & Awards

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### SCHOLARSHIPS & AWARDS

24 - 27	<b>Postgraduate Research Scholarship</b> , Australian National University	Australia
24 - 27	<b>HDR Fee Remission Merit Scholarship</b> , Australian National University	Australia
2022	<b>Certificate of Excellent Course Representative</b> , Australian National University	Australia
18 - 21	<b>Continuing International Award, 1st Class</b> , University of Alberta	Canada
2017	<b>International Student Scholarship (Honor Entrance)</b> , University of Alberta	Canada

## Technical Skills

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<b>Programming Languages</b>	Python, Java, C, Lisp, SQL, JavaScript
<b>ML Frameworks</b>	TensorFlow, PyTorch, NumPy, Pandas
<b>Dev Tools &amp; Frameworks</b>	Flask, Vue, React, Android Studio, IntelliJ, VS Code, PyCharm
<b>OS Platform</b>	Linux(Ubuntu), Windows, macOS

## Academic Service

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### Neural Information Processing Systems

REVIEWER NeurIPS

2025

### International Conference on Machine Learning

REVIEWER ICML

2025

### International Conference on Computer Vision

REVIEWER ICCV

2025

### International Conference on Learning Representations

REVIEWER ICLR

2025-2026