

Tongxu ZHANG

EDUCATION

University of Macau

Quit from Doctor of Philosophy Program

Aug. 2025 – Sept. 2025

Taipa, Macau SAR

The Hong Kong Polytechnic University

Master of Science in Biomedical Engineering, GPA 3.49/4.3

Sept. 2023 – Jul. 2024

Kowloon, Hong Kong SAR

East China University of Science and Technology

Bachelor of Engineering in Automation, GPA 3.48/4

Sept. 2019 – Jun. 2023

Shanghai, China

WORK EXPERIENCE

The Hong Kong Polytechnic University

Research Assistant

Oct. 2025 – Apr. 2026

Kowloon, Hong Kong SAR

- Supervisor: Ir. Dr. Aaron LEUNG and Prof. Amy FU

The Hong Kong Polytechnic University

Research Assistant

Oct. 2023 – Jul. 2025

Kowloon, Hong Kong SAR

- Supervisor: Ir. Dr. Aaron LEUNG and Prof. Amy FU

East China University of Science and Technology

Remote Visiting Student

Sep. 2024 – Feb. 2025

Shanghai, China

- Supervisor: Prof. Bei WANG

Insta360

Intern of Deep Learning

Jun. 2022 – Aug. 2022

Shenzhen, China

- Optimize the self-developed aesthetic model for evaluating image aesthetics

RESEARCH EXPERIENCE

PET/MRI partial volume correction for alzheimer's disease

Aug. 2025 – Sept. 2025

- Realize PVC correction of PET through deep learning, obtain ADNI data, preprocess it with Freesurfer, and reproduce relevant deep learning papers

Auricular acupuncture device for sports recovery

Oct. 2023 – Jul. 2025

- Responsible for collecting the data by 3D scanning, and building the ear splint model by CAD for auricular acupuncture manual device by 3D printing

3D point cloud study for medical imaging

Sep. 2024 – Feb. 2025

- Responsible for data cleaning, model training, and paper writing

Catalytic mechanism of novel fungal sesquiterpene synthase based on machine learning

May 2021 – Sept. 2022

- Responsible for the theoretical research of the project, the establishment and implementation of the project implementation design, and the resolution of code conflicts.

Velocity and position measurement of droplet-based microfluidics based on YOLOv5

Oct. 2021 – Dec. 2021

- Responsible for labeling the images and debugging code for estimating position of droplet.

PUBLICATION

Under Review

Submitted

- **Tongxu ZHANG**, Zhiming LIANG & Bei WANG (2025). A Survey of Medical Point Cloud Shape Learning: Registration, Reconstruction and Variation. arXiv preprint arXiv:2508.03057.

Under Review

Submitted

- **Tongxu ZHANG** & Bei WANG (2025). Point Cloud Upsampling as Statistical Shape Model for Pelvic. arXiv preprint arXiv:2501.16716.

Computer Vision and Image Understanding

SCI Q2, CCF-B Journal

- **Tongxu ZHANG** & Bei WANG (2025). Representation Learning of Point Cloud Upsampling in Global and Local Inputs

ICMLC 2025

EI Conference

- **Tongxu ZHANG** (2024). Rethinking Data Input for Point Cloud Upsampling

ICANN 2023

CCF-C Conference

- **Tongxu ZHANG** & Bei WANG (2023). Contrastive Learning for Sleep Staging based on Inter Subject Correlation

AWARDS

Outstanding graduates

Jun. 2023

Awarded by East China University of Science and Technology

Outstanding dissertations

Jun. 2023

Awarded by East China University of Science and Technology

School Scholarship

Sept. 2020

Awarded by East China University of Science and Technology

PROFESSIONAL SERVICE

PRCV 2025: Reviewer

SKILLS & INTERESTS

Skills: Python, Pytorch, Matlab, Linux, Blender, CAD

Interests: Computer Vision, 3D Vision, Healthcare, Large Multimodality Model

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