

# Jialu Tang

AI for Health | Multimodal Learning | Trustworthy Systems

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## EDUCATION

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### Eindhoven University of Technology

*Ph.D. candidate Industrial Design*

Sept 2022 – Present

Eindhoven, NL

- Developed ECG-language models with cross-domain adaptation, multimodal fusion, and evidence-driven reasoning to achieve robust generalization under data scarcity, incomplete information, and distribution shifts in real-world clinical settings.

### Donghua University

*M.Eng. Mechanical Engineering*

Sept 2020 – Jul 2022

Shanghai, CHN

- Courses: Product Design, Ergonomics, System Design, Engineering Mathematics.

### Anhui University of Technology

*B.Eng. in Industrial Design*

Sept 2016 – Jul 2020

Ma'anshan, CHN

- Courses: Design Methodology, Product Development, Mechanical Equipment Design.

## WORK EXPERIENCE

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### Xiao-I Robotics

*Product Management Intern*

Mar 2022 – Jun 2022

Shanghai, CHN

- Authored RPD docs (user guides/specs/release notes) to align teams and support delivery.
- Prototyped an OCR + workflow bot to automate CCTEB transport-vehicle audit documents.
- Defined user flows/acceptance criteria; drafted device form factor; evaluated camera/lighting/printer trade-offs.

### RaDyn Health

*Algorithm Development Intern*

Jul 2022 – Sept 2022

Shanghai, CHN

- Built a tumor-segmentation pipeline; benchmarked nnU-Net, TransUNet, UNETR, and Swin-UNETR end-to-end.
- Ran controlled experiments (Dice + visualizations) and selected TransUNet as the lead model.
- Delivered standardized overlays/reports and reproducible logs for lesion detection (location/count/volume).

## AWARDS

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China Scholarship Council (CSC) Scholarship

2022 - 2026

First-class Scholarship, Donghua University

2020 - 2021

Third Prize, Anhui Division, National University Students Industrial Design Competition

Jul 2019

Special / First-class Scholarship, Anhui University of Technology (annual)

2016 - 2020

## PUBLICATIONS

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- Tang, J., Pham, H. M., De Lathauwer, I., Schipper, H. S., Lu, Y., Ma, D., & Saeed, A. *Interpretable multimodal zero-shot ECG diagnosis via structured clinical knowledge alignment*. npj Cardiovascular Health, 3(1):1, 2026.
- Tang, J., Xia, T., Lu, Y., & Saeed, A. *UniPACT: A multimodal framework for prognostic question answering on raw ECG and structured EHR*. ICASSP 2026.
- Pham, H. M., Tang, J., Saeed, A., & Ma, D. *Q-Heart: ECG question answering via knowledge-informed multimodal LLMs*. ECAI 2025.
- Tang, J., Xia, T., Lu, Y., Mascolo, C., & Saeed, A. *Electrocardiogram-language model for few-shot question*

*answering with meta learning.* CHIL 2025.

- Tang, J., Xia, T., Lu, Y., Mascolo, C., & Saeed, A. *Electrocardiogram report generation and question answering via retrieval-augmented self-supervised modeling.* ICASSP 2025.
- Herkert, C., Van Leunen, M., Tang, J., Raschella, F., Saeed, A., Spee, R. F., Lu, Y., & Kemps, H. M. C. *Non-invasive multiparameter monitoring for detection of decompensated heart failure: an exploratory study.* European Journal of Preventive Cardiology, 2024.