

# Jiahao Ma

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## EDUCATION

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- **Hebei University of Technology** China  
*Bachelor of Communication Engineering; GPA: 3.7/4 (Ranking: top 5%)* 2016 - 2020
- **Australian National University** Australia  
*MPhil of Machine Learning and Computer Vision* 2021 - 2023
- **Australian National University** Australia  
*Doctor of Philosophy* 2023 - current

## RESEARCH PROJECTS

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- **Graduation Design (Paper)** Dec 2019 - Jun 2020  
*Hand recognition based on Raspberry Pi and hand gesture dataset collection.*
  - **Algorithm Deployment:** Deploy light-weight hand gesture detection model on Raspberry Pi platform.
  - **Dataset Collection:** Proposed two comprehensive hand gesture dataset. Dataset1 for image classification contains 7 types of gesture, a total of 10490 images and 120 persons are collected. Dataset2 for object detection consists of 7 hand gestures, each amounting to one thousand photos requested from the Internet.
  - **Impact:** My graduation thesis won "Excellent Graduation Thesis of Hebei University of Technology Award" and "Tianjin Excellent Graduation Thesis Award" in 2020.
- **Data Business Analysis (Code)** Jul 2020 - Jul 2021  
*Analysis of customer electricity consumption based on the distribution of solar electric panels.*
  - **Algorithm Design:** Proposed multitasking detection network to detect the spatial distribution of solar panels and used K-Means clustering to recommend the potential grid address.
  - **Impact:** Our technical solution was adopted by the Western Australia Energy Company, Synergy, and received the funding of **AUD 16000**.
- **Multiview cattle monitoring (Dataset, Code, Paper)** Mar 2021 - Dec 2021  
*Multiview cattle detection and synthetic dataset generation.*
  - **MultiviewC dataset:** Proposed the MultiviewC dataset which mainly contributes to multiview cattle action recognition, 3D object detection and tracking.
  - **Algorithm Design:** Proposed multiview detection pipeline for cattle detection to handle the occlusion problem in crowded scene.
- **Multiview pedestrian detection (Paper)** Dec 2021 - Jul 2022  
*Multiview pedestrian detection utilizing various camera views.*
  - **Algorithm Design:** Proposed a deep learning based multiview pedestrian detection algorithm for multiview pedestrian detection with very competitive results.

## PUBLICATIONS

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- **Jiahao Ma**, Miaomiao Liu, David Ahmmedt-Aristizabal and Chuong Nguyen. "HashPoint: Accelerated Point Searching and Sampling for Neural Rendering". IEEE/CVF Conference on Computer Vision and Pattern Recognition 2024 (**Highlight**).

## HONORS AND AWARDS

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- Outstanding Graduates, Hebei University of Technology, Jun.2020
- Merit Student for two consecutive years, Hebei University of Technology, 2019-2020
- Excellent Graduation Thesis of Hebei University of Technology and Tianjin Excellent Graduation Thesis, 2020