

# DINGQIANG YE

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## ABOUT ME

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I am a third-year Master's student, fortunate to be advised by Prof. Shiqi Yu. Currently, I am a visiting student at Prof. Xiaoming Liu's lab at Michigan State University. My research focuses on the following topics: Foundation Models, Biometric Recognition and Generative Models.

## 🎓 EDUCATION

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**Michigan State University** East Lansing, U.S.  
*Visiting Scholar, Computer Vision* Apr. 2024 – Present

- Advisor: Prof. Xiaoming Liu
- Research Areas: Foundation Models, Biometric Recognition, Video Understanding

**Southern University of Science and Technology** Shenzhen, China  
*Master's student, Electronics Science and Technology* Sep. 2022 – Present

- Advisor: Prof. Shiqi Yu
- Research Areas: Foundation Models, Gait Recognition, Generative Models

**Southern University of Science and Technology** Shenzhen, China  
*B.S., Computer Science and Engineering* Sep. 2018 – Jun. 2022

- GPA: 3.62/4.0

## 📖 PUBLICATION

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• **BigGait: Learning Gait Representation You Want by Large Vision Models** *CVPR 24*  
Dingqiang Ye\*, Chao Fan\*, Jingzhe Ma, Xiaoming Liu and Shiqi Yu (\* denotes equal contribution) [PDF]

• **Pedestrian Attribute Editing for Gait Recognition and Anonymization** *TPAMI Submission*  
Jingzhe Ma\*, Dingqiang Ye\*, Chao Fan\* and Shiqi Yu (\* denotes equal contribution)[PDF]

## ⚙️ PATENTS

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• **Method, Device, Apparatus and Storage Medium for Gait Recognition Based on Large Vision Model.**  
China Patent, Application No. 202410222902.3. 2024

• **A Gait Recognition Method and System for Robotics.**  
China Patent, Application No. 202210951063.X. 2022

## 📁 WORK EXPERIENCE

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**Tencent** Shenzhen, China  
Software Engineer Intern Jun. 2021 – Sep. 2021

- Developed a remote interface based on the TRPC framework to call web business.
- Learned the writing standards for Golang, such as centralized processing of error and web business layering.

**Orbbec** Shenzhen, China  
3D Vision Algorithms Intern Feb. 2021 – Jun. 2021

- Responsible for annotating training data.
- Developed an algorithm for measuring the distance between a binocular depth camera and a plane.

## 📌 RESEARCH PROJECT

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### BRIAR Program Contributor

Jun 2024

- A program about human recognition at long range and from high altitude.
- Responsible for the long-distance gait recognition part.
- Design several novel techniques to enhance performance, enabling a single gait model to significantly outperform specific project goals.

### OpenGait Project Contributor

Feb 2024

- One of the code contributors.
- A flexible and extensible gait analysis project. (**649 Stars**)
- The corresponding paper has been accepted by CVPR'23 as a **highlight** paper.

### BigGait: Learning Gait Representation You Want by Large Vision Models

Sept. 2023

- An innovative methodology for the **next-generation** gait representation construction.
- Extracting gait-related representation from LVMs (DINOv2) in **an unsupervised manner**.
- Shifting from task-specific gait priors to LVMs-based all-purpose knowledge.
- Outperforming existing SoTA video-based ReID methods almost **20%** in Rank-1.
- In most cases, BigGait is the state of the art in both **within / cross-domain** tasks.

### Pedestrian Attribute Editing for Gait Recognition and Anonymization

Sept. 2022

- An online gait sequence editing model based on GAN-Inversion with an **unsupervised** training paradigm.
- Real-time editing gait **attributes**, *i.e.*, gender, hat, jacket, viewpoint and so on.
- Improving the samples-level diversity in the gait dataset.
- Improving the recognition performance in unsupervised and cross-domain tasks.

### Design of Gait Recognition System for Mobile Robots

Sept. 2021

- A Gait Recognition System for Mobile Mechanical Dogs.
- Gait recognition system based on depth maps, TensorRT and Jetson Nano-2GB, inference time  $\leq 375$ ms.
- The comprehensive accuracy reaches 88.8% with considering different settings.

## ⚙️ SKILLS

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- Languages: English - Fluency, Mandarin - Native speaker
- Programming Languages: Python, C++, Java, Golang, Rust, SQL
- Deep Learning Frameworks: PyTorch, TensorFlow
- Others: Linux, MacOS, Windows, Microsoft Office, LaTeX (Overleaf), Github, Unity3D, ROS

## ♥️ HONORS AND AWARDS

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SUSTech Outstanding Graduate Teaching Assistant

*Sep. 2023*

SUSTech Merit Student Scholarship

*Nov. 2021*

Honorable Mention. International Collegiate Programming Contest (top 40%)

*Nov. 2020*

Honorable Mention. China Collegiate Programming Contest (top 50%)

*Nov. 2020*