

QINGLING DUAN

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PERSONAL SUMMARY

I am eager to learn and continuously improve, committed to honesty, and dedicated to innovation. As a young, dynamic individual with ambitious career goals, I strive for excellence in all that I do.

EDUCATION

University of Chinese Academy of Sciences, China

M.Eng., Computer Technology, 2020.7–2023.7

Beijing Institute of Technology, China

B.Eng., Computer science and technology, 2016.8 – 2020.7

RESEARCH INTEREST

My research interest lies in the field of machine learning.

PROJECT EXPERIENCE

Three-Dimensional Force Sensor

2021.2 – 2022.6

Tactile sensors are challenging in decoupling 3D forces for complex soft materials.

- Data gathering & preprocessing: Control the Data Acquisition system to obtain the 3d force deformation image, and synchronously record the 3D force information. Finally, 24000 group sampled data was obtained.
- Model Training & Evaluation: A Resnet-based model training and optimization (optimizer selection, parameter setting)
- Application experiment: Using force feedback control to grasp fragile objects (potato chips, eggs).

Staff Exclusion

2024. 6

One of Footfallcam's key features is staff identification.

- Data Labelling: The objects to mark are people (sticking out their chests) and name tags.
- Model Training & Evaluation: Use YOLOv8s to train the dataset.
- Object Detection & Recognition: The entire bounding box of the name tag is inside the people's bounding box, and then people are staff.

SKILLS

- Proficiency: Python, PyTorch, C
- Have experience: MATLAB, C++

AWARDS

- The S Prize in the Mathematical Contest in Modeling(MCM) 2018
- The scholarship in BIT (Four times) 2017-2019

PUBLICATIONS

- **Qingling Duan**, Qi Zhang, Dong Luo, Ruofan Yang, Chi Zhu, Zhiyuan Liu, and Yongsheng Ou. "Three-Dimensional Force Sensor based on Deep Learning." *1st International Conference on Cognitive Computation and Systems(ICCCS)*, Zhuhai, China, Sep. 2022.

PATENT

- **Qingling Duan**, Yongsheng Ou, Qi Zhang, Zhiyuan Liu, and Guolai Jiang. "The invention relates to a vision-based three-dimensional force detection method, installation and related equipment." Application No.:202310475861.4, Application date: April 25, 2023.