Bingcheng HU

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EDUCATION

Shanghai Jiao Tong University (SJTU), China — Sept 2016 – Present

- University of Michigan–Shanghai Jiao Tong University Joint Institute (UM-SJTU JI)
- Electric and computer engineering (teaching specialized courses totally in English)

Sophia University, Japan — Feb 2018 – Mar 2018

- Visiting Student: Japanese Education. Contemporary Japanese Culture & Society

RESEARCH EXPERIENCE

Department of Physical Education and Sports Science | Zhejiang University — Oct 2017 – Feb 2019

- Develop a data processing system for the 3D force sensor independently.
- Designed and made a gesture sensor based on a bending sensor.
- Created a sophisticated gesture sensing device based on inertial sensors.
- Two papers are being reviewed (first author and second author).

Collaborative Information Systems Laboratory | Shanghai Jiao Tong University — Mar 2019 – Present

- Wrote the crawler software to crawl the GitHub user data and save it as a SQL database file for easy use by peers.
- Perform data processing and sentiment analysis based on the collected data.

PAPERS UNDER REVIEW

- Journal name and Manuscript ID: *Biomedical Signal Processing and Control* | BSPC-D-19-00416
  Research Paper Title:
  A flexible, attachable and low-cost IMU-based motion capture system for measurement of hand kinematics
- Journal name and Manuscript ID: *Sensors* | sensors-560326
  Article Title: *Hand Kinematics in Badminton Based on Smart Glove and Visualization Technology*

SELECTED PROJECTS

Data set based recommendation system for machine learning model | Team leader — Oct 2018 – Present

- Wrote a web crawler and crawled all the data on the OpenML website
- Trained the data and used a tag-based recommendation system.

Design of a gesture sensor with six-axis gyro control | Experimental assistant — Jan 2018 – May 2018

- Proposed a flexible, attachable and low-cost IMU-based motion capture system
- Designed and made a PCB board. Completed the soldering and wiring of the device. Produced a 3D printed shell.
- Wrote a full set of code for data acquisition, transmission, and post-processing

SJTU-company innovation practice program for undergraduates | Team leader — Nov 2017 – Nov 2018

- Designed a lighting device for indoor photography
- Wrote an app for controlling smart light bulbs

AWARDS

- Third-prize Scholarship, SJTU
- second prize (2/30), 2018 China-US Young Maker Competition (Shanghai)
- first prize (3/40), The 8th University Engineering Comprehensive Ability Competition (Shanghai)
- first prize (1/20), 2018 VEX Robot Shanghai Division Selection Competition

PROFESSIONAL SKILLS

- Programming Language: MATLAB, C++, C, Python, Verilog HDL, MIPS Assembly
- Software: OrCAD, DataGraph, Mathematica, Xilinx, AutoCAD, CTex, Qt
- Operating System: Linux, Android, iOS, macOS