Jiachen Wang

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EDUCATION

Sept 2018 -Present

Ph.D. candidate in Computer Science and Technology

Zhejiang University, Hangzhou, China

• Supervisor: Prof. Yingcai Wu

• Research Interest: knowledge discovery and visual analytics of sports data

Sept 2014 -July 2018

B.E. in Digital Media Technology

Zhejiang University, Hangzhou, China

• Supervisor: Prof. Yingcai Wu

• Thesis: iSSVis: Interactive Visualization of Stroke Sequences in Table Tennis

PROJECTS

Collaboration with the Chinese Table Tennis Association

Mar 2019 -Present

Construction of the Table Tennis Data Platform

• Collected and iterated the requirements of the Chinese National Table Tennis Team.

• Designed and developed the data collection[5], tactic mining[2], match simulation[3], and performance evaluation[1] methods for table tennis.

• Investigated IoT+VA methods for table tennis training (in progress).

May 2021 -Sept 2021

Preparation for the Tokyo 2020 Olympics

• Provided data service for the Chinese National Table Tennis Team to prepare for the Tokyo 2020 Olympics.

• The team won 4 gold and 3 silver medals. The collaboration was reported by CCTV (https://news.cctv.com/2021/08/11/ARTIr8tJM4nALew9sT4pP9o9210811.shtml) and other online media. The related reports has been read more than 80,000,000 times on Sina Weibo.

Collaboration with the Chinese Basketball Association

Oct 2021 -Present

Construction of the Basketball Vsiual Analytics System

• Collected and iterated the requirements of the Chinese Basketball Association.

• Designed and developed a system to visualize the data of the register players, coaches, referees, clubs, and matches.

PUBLICATION

Table Tennis Analysis

[1] Tac-Valuer: Knowledge-based Stroke Evaluation in Table Tennis
<u>Jiachen Wang,</u> Dazhen Deng, Xiao Xie, Xinhuan Shu, Yu-Xuan Huang, Le-Wen Cai, Hui Zhang, Min-Ling Zhang, Zhi-Hua Zhou, Yingcai Wu
The ACM SIGKDD Conference on Knowledge Discovery and Data Mining, 2021

[2] Tac-Miner: Visual Tactic Mining for Multiple Table Tennis Matches
<u>Jiachen Wang,</u> Jiang Wu, Anqi Cao, Zheng Zhou, Hui Zhang, Yingcai Wu
IEEE Transactions on Visualization and Computer Graphics, IEEE Pacific Visualization 2021

[3] Tac-Simur: Tactic-based Simulative Visual Analytics of Table Tennis
<u>Jiachen Wang,</u> Kejian Zhao, Dazhen Deng, Anqi Cao, Xiao Xie, Zheng Zhou, Hui Zhang, and Yingcai Wu
IEEE Transactions on Visualization and Computer Graphics, IEEE VAST 2019

[4] SimuExplorer: Visual Exploration of Game Simulation in Table Tennis
Ji Lan, Zheng Zhou, <u>Jiachen Wang</u>, Hui Zhang, Xiao Xie, Yingcai Wu.
IEEE Transactions on Visualization and Computer Graphics, 2021

[5] EventAnchor: Reducing Human Interactions in Event Annotation of Racket Sports Videos
Dazhen Deng, Jiang Wu, <u>Jiachen Wang</u>, Yihong Wu, Xiao Xie, Zheng Zhou, Hui Zhang, Xiaolong Zhang, and Yingcai Wu
The ACM CHI Conference on Human Factors in Computing Systems, 2021

[6] iTTVis: Interactive Visualization of Table Tennis Data
Yingcai Wu, Ji Lan, Xinhuan Shu, Chengyang Ji, Kejian Zhao, <u>Jiachen Wang,</u> and Hui Zhang
IEEE Transactions on Visualization and Computer Graphics, IEEE InfoVis 2017

Soccer Analysis

[7] PassVizor: Toward Better Understanding of the Dynamics of Soccer Passes
Xiao Xie, <u>Jiachen Wang</u>, Hongye Liang, Dazhen Deng, Shoubin Cheng, Hui Zhang, Wei Chen, and Yingcai Wu
IEEE Transactions on Visualization and Computer Graphics, IEEE VAST 2020

[8] ForVizor: Visualizing Spatio-Temporal Team Formations in Soccer
Yingcai Wu, Xiao Xie, <u>Jiachen Wang</u>, Dazhen Deng, Hongye Liang, Hui Zhang, Shoubin Cheng, and Wei Chen
IEEE Transactions on Visualization and Computer Graphics, IEEE VAST 2018

Others

[9] Interactive Visual Exploration of Longitudinal Historical Career Mobility Data
Yifang Wang, Hongye Liang, Xinhuan Shu, <u>Jiachen Wang</u>, Ke Xu, Zikun Deng, Cameron Campbell, Bijia Chen, YIngcai Wu, and Huamin Qu
IEEE Transactions on Visualization and Computer Graphics, 2021

[10] What makes a scatterplot hard to comprehend: data size and pattern salience matter
<u>Jiachen Wang</u>, Xiwen Cai, Jiajie Su, Yu Liao, Yingcai Wu
Journal of Visualization, ChinaVis 2021

WORK IN PROGRESS

[1] **Tac-Educator: Augmenting Skill Acquisition in Racket Sports**
<u>Jiachen Wang</u>, Jiang Wu, Ji Ma, Zheng Zhou, Hui Zhang, Xiao Xie, Yingcai Wu

[2] **Tac-Trainer: A Visual Analytics System for IoT-based Racket Sports Training**
<u>Jiachen Wang</u>, Ji Ma, Kangping Hu, Zheng Zhou, Hui Zhang, Xiao Xie, Yingcai Wu

[3] **Tac-Anticipator: Visual Analytics of Anticipation Behaviors in Table Tennis Matches**
<u>Jiachen Wang</u>, Yihong Wu, Xiaolong Zhang, Yixin Zeng, Zheng Zhou, Hui Zhang, Xiao Xie, Yingcai Wu

[4] **SportsSG: Towards Better Decision Making of Sequential Games in Sports**
Xiangtong Chu, Xiao Xie, **<u>Jiachen Wang</u>**, Zhiyu Xie, Wenming Liu, Hui Zhang, Yingcai Wu

AWARDS

2021	• The 1st prize in the Humanities and Social Sciences Award for outstanding achievement of Zhejiang University (for Tac-Miner[2])
	• National Scholarship
	• Award of Honor for Graduate of Zhejiang University
	• Graduate of Merit of Zhejiang University
	• IEEE PacificVis 2021 Honorable Mention Award (for Tac-Miner[2])
2019	• National Scholarship
	• Award of Honor for Graduate of Zhejiang University
	• Graduate of Merit of Zhejiang University
2018	• Academic Scholarshop of Zhejiang University
2017	• Academic Star of Department of Computer Science and Technology
2016	• Outstanding Student Leader of Zhejiang University
2015	• Second-Class Scholarship for Outstanding Students of Zhejiang University

SERVICE

Reviewer	• IEEE VIS Conference, 2020
	• ACM Conference on Human Factors in Computing Systems (CHI), 2020
	• EuroVis 2021
	• IEEE VIS Conference, 2021
	• IEEE VIS Conference, 2022
Teaching Asistant	• Information Visualization, Zhejiang University, 2019
	• Cross Media Data Visualization, Zhejiang University, 2019
	• History of Computer Thoughts, Zhejiang University, 2020