Qihang Zhu

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Education

10/2023-**Present**	**PhD**/ Institut Systèmes Intelligents et de Robotique, Sorbonne University	Paris, France

Field: Human-computer Interaction, motor control   Supervisors: Gilles Bailly, Julien Gori & Emmanuel Guigon

09/2020-06/2023	**Master**/Beihang University (BUAA)	Beijing, China

Major: Man-Machine and Environmental Engineering   GPA: 3.86/4.0   Rank：6/219

09/2016-06/2020	**Bachelor**/Nanjing University of Aeronautics and Astronautics (NUAA)	Nanjing, China,

Major: Aerospace Engineering   GPA: 91/100   Rank：24/290

12/2019-06/2020	**Exchange Student**/Ecole Nationale d'Ingénieurs de Metz(ENIM)	Metz, France
08/2019 **Visitor**/University of Cambridge---Artificial Intelligence and Engineering Science Program		London, UK

Standard Tests

26/12/2022   IELTS: 7   Listening: 6.5; Reading: 8; Writing: 6.5; Speaking: 6

Honors & Awards

2020-2022   The Wusi Medal (Top honor for the graduate students of the university);
                    Outstanding Graduate; The First Prize of Academic Scholarship.

2016-2020   The First Prize of Academic Scholarship; The Second Prize of Outstanding Student Scholarship (consecutively)

Projects

10/2023-**Present**   *Computational models to predict user trajectories in dynamic environments* (Neuro HCI program)

➢ Aiming to improve users' interaction experience. The approach is to add a new mechanism representing detection threshold in the context of Hand Redirection techniques, which could predict users' detection threshold under different perturbations and conditions

Key words: <u>Motor control</u>, Human Computer Interaction (<u>HCI</u>)

09/2020- 06/2023   *Speed Skating Model*

➢ Mainly involves <u>Self-programming</u> modeling; <u>Inverse and Forward Dynamics</u>; <u>Multi-body kinematics</u>.

➢ Design and participate in speed skating motion capture experiments; Complete biomechanical characteristics analysis based on experimental data, and achieve drag reduction and energy saving.

➢ Build a simple 3-D speed skating model which mimics the observed motion and predict the blade forces of the skater based on the optimization algorithm. This self-programming work is carried out with Matlab.

Publications

➢ Qihang Zhu, Chunxin Yang, Peng Ke, Han Yang, Ping Hong, A ground reaction force model of speed skating based on non-contact measurement system, iScience, Volume 27, Issue 1, 2024, 108513, ISSN 2589-0042, https://doi.org/10.1016/j.isci.2023.108513.
    Key word: Long-track Speed Skating; Single-body Model; Stroke Detection; Optimization;

Posters and talks

➢ Talk: The computational model of detection threshold in the Hand Redirection. Qihang Zhu, 1st European Motor Control Conference, Munich, Germany.

Institutional Service

Position: Vice President of the Graduate Student Association

➢ Responsible for the affairs of Department of External Liaison which seeks for close communication with other universities and hosts the school fellowship.

Competitions

➢ **First Prize** in the Beijing Semi-final of the 9th China International "Internet+" College Students' Innovation and Entrepreneurship Competition

➢ **Gold Award** in China International College Student Innovation Competition (2023)

Additional Information

➢ Language skills: English (C1), French (A2)

➢ Computer skills: MATLAB; CAD; CATIA; C++; Origin; Creo; Xflow