

Xieheng Wang

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I'm looking for a PhD opportunity starting from fall 2023.

Research interests	High dimensional statistics, dimension reduction, spatial statistics, causal inference	
Education	Tsinghua University	Beijing, China
	<i>B.Eng. in Measurement, Control Technology and Instruments</i>	<i>GPA: 3.73/4.0 Sept. 2019– Present</i>
	<i>minor in Statistics</i>	<i>GPA: 3.89/4.0 Mar. 2021– Present</i>
Research experience	Relationships and Shared Genetic Influences between T2D Biomarkers and Human Brain Health	
	<i>Mentor: Bingxin Zhao (University of Pennsylvania)</i>	<i>Apr. 2022 – Present</i>
	• Explored the association between Type 2 diabetes and human brain from individual level and summary level.	
	Pure Noise Enables Privacy-Preserving Federated Learning with Non-iid Data	
	<i>Mentor: Huaiyu Dai (North Carolina State University)</i>	<i>July 2022 – Aug. 2022</i>
	• Applied OPeN (Oversampling with Pure Noise Image) in the framework of federated learning to enhance performance and privacy.	
	Feature-based Classification on MQTT Data	
	<i>Mentor: Jingyi Zhang (Tsinghua University)</i>	<i>Oct. 2021 – Present</i>
	• Applied POTD (principal optimal transport direction) on MQTT-IoT-IDS2020 dataset to extract features distinguishing different attacks. <i>One working paper now available in arxiv.</i>	
	• Proposed a new ensemble method of classification based on SDR subspace using POTD.	
	Design and Construction of Vision-based Quadrotor Navigation Control System	
	<i>Mentor: Kaichun Zhao (Tsinghua University)</i>	<i>Sept 2020 – Dec 2021</i>
	• Applied some visual SLAM methods like SuperPoint on real image data obtained by drone in the environment of smoke.	

Teaching experience	Teaching assistant, Department of Military (Tsinghua University)	
	<i>Spring 2022</i>	
	The Martial Geomorphology and The Directional Sport(Orienteering)	
	Help place the control points for maps before class and recycle them after class.	
Honors and scholarships	Academic Excellence Scholarship, Tsinghua University	2021
	Sports Excellence Scholarship, Tsinghua University	2021
	Academic Excellence Scholarship, Tsinghua University	2020
	Sports Excellence Scholarship, Tsinghua University	2020
Skills	Programming	
	R, Python, PyTorch, MATLAB, C/C++	
	Tools	
	L ^A T _E X, Linux, SPSS, Git, OCAD	
	Languages	
	English (TOEFL:102, CET-6:630), Mandarin (native)	
Standardized Tests	GRE:323 (Verbal:154, Quantitative:169, AW:3.5)	
Leadership&Activities	Vice president of Tsinghua Orienteering Association	<i>Sept. 2022 - Present</i>
	Member of Tsinghua Orienteering Team	<i>Oct. 2019 - Present</i>