



John Clapham

Graduate Student
Computer Science Department, William & Mary
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RESEARCH INTERESTS

Sensor systems, mobile computing, action localization and measurement, inertial sensors, computing for health and wellness, nutrition, human-centered computing

EDUCATION

William & Mary, Williamsburg, VA

Doctor of Philosophy in Computer Science *2021 – Present*

Advisor: Dr. Gang Zhou

Master of Science in Computer Science *2021 – 2023*

Master's Project Title: Anaximander: Crowdsourced Visualization of Signal Strength

Advisor: Dr. Gang Zhou

Bachelor of Science in Computer Science *2017 – 2021*

ACADEMIC POSITIONS

William & Mary, Williamsburg, VA

Graduate Research Assistant *May 2023 - Present*

Graduate Teaching Assistant *Jan 2023 - May 2023*

HONORS & AWARDS

1. IEEE TCI Student Travel Award *2025*
2. Best Paper Award, ACM/IEEE Conference on Connected Health: Applications, Systems and Engineering Technologies (CHASE) *2025*
3. NSF Student Travel Award *2024*
4. Best Paper Award, ACM/IEEE Conference on Connected Health: Applications, Systems and Engineering Technologies (CHASE) *2024*

RESEARCH

Refereed Conference Papers

1. John Clapham, Michelle Zhou, Collin MacDonald, Kenneth Koltermann, Ye Gao, Huajie Shao, “ElectroMeter: The Practical Electrolyte Measurement System,” in *ACM/IEEE Conference on Connected Health: Applications, Systems and Engineering Technologies (CHASE)*, New York City, NY, 2025.
2. Chen Qian, Chuntian Chi, John Clapham, Jiarui Qi, Zherui Zhang, Ginamari Blackwell, Ingrid Pretzer-Aboff, Leslie Cloud, Meiyi Ma, Gang Zhou, Huajie Shao, “Trigger-Finder: A Real-Time Freezing-of-Gait Trigger Detection System Using an Instruction-Tuned Multimodal Large Language Model,” in *ACM/IEEE Conference on Connected Health: Applications, Systems and Engineering Technologies (CHASE)*, New York City, NY, 2025.
3. Xinyu Chen, Kenneth Koltermann, John Clapham, Ginamari Blackwell, Leslie Cloud, Ingrid Pretzer-Aboff, Huajie Shao, Gang Zhou, “WaveTremor: Tremor Detection for Parkinson’s Disease via Spatial-Temporal Learning,” in *ACM/IEEE Conference on Connected Health: Applications, Systems and Engineering Technologies (CHASE)*, New York City, NY, 2025.

4. John Clapham, Kenneth Koltermann, Xinyu Chen, Minglong Sun, Evie Burnet, Gang Zhou, “ToPick: Time-of-Pickup Measurement for the Elderly using Wearables,” in *ACM/IEEE Conference on Connected Health: Applications, Systems and Engineering Technologies (CHASE)*, Wilmington, DE, 2024.
5. Kenneth Koltermann, John Clapham, Ginamari Blackwell, Woosub Jung, Evie Burnet, Ye Gao, Huajie Shao, Leslie Cloud, Ingrid Pretzer-Aboff, Gang Zhou, “Gait-Guard: Turn-aware Freezing of Gait Detection for Non-intrusive Intervention Systems,” in *ACM/IEEE Conference on Connected Health: Applications, Systems and Engineering Technologies (CHASE)*, Wilmington, DE, 2024.

Invited Scholarly Talks

1. Invited Lecture “ToPick: Time-of-Pickup Measurement for the Elderly using Wearables,” CSCI619 Ubiquitous & Mobile Computing.
2. Invited Talk “Fall Prevention Research,” Williamsburg Landing Retirement Community 2024.

PROFESSIONAL SERVICE

University Committee Service

Graduate Student Association Financial Committee	2023
Graduate Student Association Computer Science Representative	2023