



John Clapham, Ph.D.

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Location: Williamsburg, Virginia

RESEARCH INTERESTS

AI sensor systems, ubiquitous mobile computing, temporal action localization and measurement, inertial sensors, sensor fusion, multi-modal sensing, computing for health and wellness, nutrition, human-centered computing, healthy aging, physical therapy and rehabilitation, Parkinson's disease

EDUCATION

William & Mary, Williamsburg, VA

Doctor of Philosophy in Computer Science

2021 – 2026

Dissertation Title: Ubiquitous Intelligent Sensor Systems for Health and Wellness

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 – Jan 2026

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. W&M Entrepreneurship Hub Most Engaged Venture *2024*
4. W&M Entrepreneurship Hub Venture Acceleration Program Funding Recipient *2024*
5. NSF Student Travel Award *2024*
6. Best Paper Award, ACM/IEEE Conference on Connected Health: Applications, Systems and Engineering Technologies (CHASE) *2024*

RESEARCH

Dissertation

1. "Ubiquitous Intelligent Sensor Systems for Health and Wellness," Clapham, John Mallen Ransford. Doctoral dissertation. The College of William and Mary, 2026.

Posters

1. "Use of Gait-Guard in a Real-world Environment, International Consortium for Freezing of Gait (IC-FOG)," Leslie Cloud, Gina Blackwell, Johnny Clapham, Kenneth Koltermann, Michael Martis, John Karlsen, RK Elswick, Gang Zhou, Ingrid Pretzer-Aboff, poster, Atlanta, GA, June 2025.

Refereed Conference Papers

1. “IMUVIE: Generalizable Pickup Measurement via Motion Movies,” John Clapham, Matthew Chen, Omid Mersa, Kenneth Koltermann, Yanfu Zhang, Yuming Sun, Evie Burnet, Gang Zhou, in *ACM/IEEE Conference on Connected Health: Applications, Systems and Engineering Technologies (CHASE)*, Pittsburgh, PA, 2026.
2. “ElectroMeter: The Practical Electrolyte Measurement System,” John Clapham, Michelle Zhou, Collin MacDonald, Kenneth Koltermann, Ye Gao, Huajie Shao, in *ACM/IEEE Conference on Connected Health: Applications, Systems and Engineering Technologies (CHASE)*, New York City, NY, 2025.
3. “Trigger-Finder: A Real-Time Freezing-of-Gait Trigger Detection System Using an Instruction-Tuned Multimodal Large Language Model,” Chen Qian, Chuntian Chi, John Clapham, Jiarui Qi, Zherui Zhang, Ginamari Blackwell, Ingrid Pretzer-Aboff, Leslie Cloud, Meiyi Ma, Gang Zhou, Huajie Shao, in *ACM/IEEE Conference on Connected Health: Applications, Systems and Engineering Technologies (CHASE)*, New York City, NY, 2025.
4. “WaveTremor: Tremor Detection for Parkinson’s Disease via Spatial-Temporal Learning,” Xinyu Chen, Kenneth Koltermann, John Clapham, Ginamari Blackwell, Leslie Cloud, Ingrid Pretzer-Aboff, Huajie Shao, Gang Zhou, in *ACM/IEEE Conference on Connected Health: Applications, Systems and Engineering Technologies (CHASE)*, New York City, NY, 2025.
5. “ToPick: Time-of-Pickup Measurement for the Elderly using Wearables,” John Clapham, Kenneth Koltermann, Xinyu Chen, Minglong Sun, Evie Burnet, Gang Zhou, in *ACM/IEEE Conference on Connected Health: Applications, Systems and Engineering Technologies (CHASE)*, Wilmington, DE, 2024.
6. “Gait-Guard: Turn-aware Freezing of Gait Detection for Non-intrusive Intervention Systems,” Kenneth Koltermann, John Clapham, Ginamari Blackwell, Woosub Jung, Evie Burnet, Ye Gao, Huajie Shao, Leslie Cloud, Ingrid Pretzer-Aboff, Gang Zhou, in *ACM/IEEE Conference on Connected Health: Applications, Systems and Engineering Technologies (CHASE)*, Wilmington, DE, 2024.

Invited Scholarly Talks

1. Invited Guest Lecture, “Problem to Product: Ubiquitous Intelligent Sensor Systems for Health and Wellness,” HHP 310 Biomechanics of Human Movement at William & Mary. April 2026.
2. Invited Guest Lecture, “Ubiquitous Intelligent Sensor Systems for Health and Wellness,” CSCI 680 Data Mining & Decision Making at William & Mary. February 2026.
3. Invited Seminar Talk, “Ubiquitous Intelligent Sensor Systems for Health and Wellness,” Center for Advanced Medical Analytics at the University of Virginia. January 2026.
4. Invited Seminar Talk, “Ubiquitous Intelligent Sensor Systems for Health and Wellness,” BioMath Seminar at William & Mary. October 2025.
5. Invited Guest Lecture, “ToPick: Time-of-Pickup Measurement for the Elderly using Wearables,” CSCI 619 Ubiquitous & Mobile Computing at William & Mary. September 2024.
6. Invited Speaker, “Fall Prevention Research,” Williamsburg Landing Retirement Community. March 2024.

PROFESSIONAL SERVICE

University Committee Service

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

Paper Reviewing

ACM Transactions on Computing for Healthcare	2025
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