Yixuan Gao - CV

PhD Candidate in Computer Science, Cornell Tech
2 W Loop Road, New York, NY 10044 - United States of America
yixuan@cs.cornell.edu
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Academic Affiliations

Cornell Tech, NYC, USA 2019 - present
PhD Candidate in Computer Science, Advisor: Rajalakshmi Nandakumar

Education

Cornell Tech, USA 2019 - Spring 2026 (expected)
Ph.D. in Computer Science (GPA: 4.0/4.0)
Advisor: Rajalakshmi Nandakumar
Committee: Tanzeem Choudhury, Deborah Estrin

University of Waterloo, Canada 2014 - 2019
B.Math. in Computer Science (GPA: 3.72/4.0)
Dean's Honours List, President's Scholarship

Publication

[**7**] **Yixuan Gao**, Tanvir Ahmed, Shuang He, Zhongqi Cheng, Rajalakshmi Nandakumar. SoilSound: Smartphone-based Soil Moisture Estimation. **Under Submission MobiCom 2026**

[**6**] Bo Liu, **Yixuan Gao**, Yin Li, Rajalakshmi Nandakumar, Thijs Roumen. Assembly Stethoscope: Detecting Assembly Errors through Frequency Sweeping-A Feasibility Study. **IASA 2025**

[**5**] Zekun Chang, **Yixuan Gao**, Yuta Noma, Shuo Feng, Xinyi Yang, Kazuhiro Shinoda, Tung D Ta, Koji Yatani, Tomoyuki Yokota, Takao Someya, Yoshihiro Kawahara, Thijs Roumen. OriStitch: A Machine Embroidery Workflow to Turn Existing Fabrics into Self-Folding 3D Textiles. **SCF 2025**

[**4**] **Yixuan Gao***, Tanvir Ahmed*, Zekun Chang, Thijs Roumen, Rajalakshmi Nandakumar. VitalHide: Enabling Privacy-Aware Wireless Sensing of Vital Signs. **HotMobile 2025**

[**3**] **Yixuan Gao**, Tanvir Ahmed, Mikhail Mohammed, Zhongqi Cheng, Rajalakshmi Nandakumar. Feasibility of Radio Frequency Based Wireless Sensing of Lead Contamination in Soil. **EWSN 2024 Best Paper Award**

[**2**] Alexander T Adams, Ilan Mandel, **Yixuan Gao**, Bryan W Heckman, Rajalakshmi Nandakumar, Tanzeem Choudhury. Equity-Driven Sensing System for Measuring Skin Tone–Calibrated Peripheral Blood Oxygen Saturation (OptoBeat): Development, Design, and Evaluation Study. **JMIR Biomed Eng. 2022**

[1] **Yixuan Gao**, Ali Abedi, Tim Brecht, Ramya Bhagavatula. Analyzing Bitrates in Modern Wi-Fi Networks. **MobiCom 2018 (Poster)**

*** equal contribution**

Invited Talks

[1] **Digital Life Initiative(DLI) Seminar:** "Seeing Without Seeing: Privacy Challenges in Innovations of Wireless Sensing", Sep 2025

Academic Community Service

Program Committee Member: **IUI** 2025, **ICMI** 2024

Reviewer: **CHI** (2024-2026), **HRI** (2025), **TEI** (2025), **AutomotiveUI** (2024-2025), **CSCW** (2024), **DIS** (2024-2025), **ICIS** (2024), **SUI** (2024), **UbiComp/ISWC** (2024), **CogSci** (2025), **Creativity & Cognition** (2025), **IMX** (2025), **UIST** (2025), **ICWSM** (2025), **JMIR**
50+ reviews completed

Teaching

Teaching Assistant at Cornell University

[5] **CS5304** Data Science in the Wild, Spring 2021, 2022
[4] **INFO5600** AI in Healthcare, Fall 2021, 2022, 2025
[3] **INFO6310** Behavioral Science, Fall 2020
[2] **CS4700/5700** Artificial Intelligence, Spring 2020
[1] **CS4320/5320** Database Systems, Fall 2019

Work History

Research Assistant, Cornell University 2019-present
deploying AI-driven wireless sensing systems, and developing anti-snsing technologies

Research Assistant, University of Waterloo 2017-2018
characterizing 802.11n Wi-Fi network and developing learning-based rate adaptation algorithms

Software Developer, OpenText 2017
SFTP server development, REST API implementation, automated testing

Software Developer, Moody's Analytics 2016-2017
AXIS software suite feature implementation and optimization

Actuarial Intern, Manulife 2015
Actuarial model calculations and validations