

VASCO XU

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EDUCATION

- University of Chicago** 2021 - 2027 (Expected)
Ph.D (& M.S) in Computer Science
Advisor: Dr. Hank Hoffmann
- University of Pittsburgh** 2016 - 2020
B.Phil (& B.S) in Computer Science
Advisors: Dr. Sherif Khattab & Dr. Daniel Mossé
- Northwestern University** 2024
Visiting Researcher — Host: Dr. Karan Ahuja

PROFESSIONAL EXPERIENCE

- Google** Apr. 2024 - Sept. 2024
Student Researcher, AR Perception
Seattle, WA
- Developed XR interaction systems for low-vision accessibility, surface-bounded interactions, and text entry.
 - Host: Mar Gonzalez-Franco and Harish Kulkarni.
- Immunetrics** Aug. 2019 - Dec. 2019
Software Support Engineer
Pittsburgh, PA
- Developed a web application for a biological model building platform.

PUBLICATIONS

- [9] **MARIO: Motion-Augmented Real-Time Multi-Sensor Inertial Odometry**
Yiquan Li, Taeyoung Yeon, Chenfeng Gao, **Vasco Xu**, Xuanyou Liu, and Karan Ahuja
CVPR 2026 [Findings] – *Conference on Computer Vision and Pattern Recognition*
- [8] **SurfaceXR: Fusing Smartwatch IMUs and Ego-centric Hand Pose for Seamless Surface Interactions**
Vasco Xu, Brian Chen, Eric J Gonzalez, Andrea Colaço, Henry Hoffmann, Mar Gonzalez-Franco, and Karan Ahuja
IEEE VR 2026 – *IEEE Conference on Virtual Reality and 3D User Interfaces (TVCG Special Issue)*
- [7] **Gambler: Adaptive Sampling Under Energy Budgets**
Vasco Xu, Tejas Kannan, and Henry Hoffmann
EWSN 2025 – *International Conference on Embedded Wireless Systems and Networks*
- [6] **WatchHAR: Real-time On-device Human Activity Recognition System for Smartwatches**
Taeyoung Yeon, **Vasco Xu**, Henry Hoffmann, and Karan Ahuja
ICMI 2025 – *ACM International Conference on Multimodal Interaction*
- [5] **Multi-dimensional Engagement for Richer Hyperlocal Citizen Science Data**
Abhishek Viswanathan, **Vasco Xu**, Amy Babay, Rosta Farzan, and Aaron Birdy
C&T 2025 – *International Conference on Communities & Technologies*
- [4] **MobilePoser: Real-Time Full-Body Pose Estimation and 3D Human Translation from IMUs in Mobile Consumer Devices**

Vasco Xu, Chenfeng Gao, Henry Hoffmann, and Karan Ahuja
UIST 2024 – *ACM Symposium on User Interface Software and Technology*

[3] **MotionTrace: IMU-based Field of View Prediction for Smartphone AR Interactions**

Rahul Islam, **Vasco Xu**, and Karan Ahuja
BSN 2024 – *IEEE-EMBS International Conference on Body Sensor Networks*

[2] **Xs: Interactive Scissor Mechanisms as Portable and Customizable Shape-Changing Interfaces**

Vasco Xu and Ken Nakagaki
TEI 2023 – *ACM International Conference on Tangible, Embedded and Embodied Interaction*

[1] **LUSH: Lightweight Framework For User-Level Scheduling in Heterogeneous Multicores**

Vasco Xu, Liam White McShane, and Daniel Mossé
MCSoc 2021 – *IEEE International Symposium on Embedded Multicore/Many-core Systems-on-Chip*

PRESENTATIONS AND EXHIBITIONS

6. [**Qualcomm XR**] “INRTL: Inertial Real-time Tracking and Localization”, 2025
5. [**Google AR**] “Surface Plane Interactions”, 2025
4. [**South by Southwest (SXSW)**] “Xs Sculpture”, 2024
3. [**Chicago South Side Science Festival**] “Xs Sculpture”, 2023
2. [**Ars Electronica**] “Xs Sculpture”, 2023
1. [**Symposium on the Science of Security (HotSoS)**] “MAZE: A Secure Cloud Storage Service Using Moving Target Defense and Secure Shell Protocol (SSH) Tunneling”, 2021

SELECTED HONORS AND AWARDS

McCormick Fellowship , University of Chicago	2021
Honorable Mention for Outstanding Undergraduate Researcher , Computing Research Association (CRA)	2021
Bachelor of Philosophy Degree (highest undergraduate distinction) , University of Pittsburgh	2021
Chancellor’s Undergraduate Research Fellowship , University of Pittsburgh	2020
Seed Scholar Grant , University of Pittsburgh	2020
Dietrich School Scholarship , University of Pittsburgh	2017

PAPER REVIEWING

ACM CHI LBW	2025
ACM IMWUT	2024, 2025
ACM TEI	2025
ACM CHI (1 Special Recognition for Outstanding Reviews)	2025, 2026
ACM UIST	2024, 2025

STUDENT MENTORING

Bishnu Dev , Undergraduate, NYU Abu Dhabi	2023-Present
Brian Chen , Undergraduate, Northwestern University	2024

TEACHING EXPERIENCE

- **Guest Lecturer**, AI/ML Bootcamp 2024
Google Seattle
- **Guest Lecturer**, Advanced Topics in Ubiquitous Computing 2024
Northwestern University
- **Undergraduate Teaching Assistant**, Introduction to Programming with Java 2019
University of Pittsburgh

SELECTED PRESS COVERAGE

- Northwestern Engineering** New App Performs Real-Time, Full-Body Motion Capture with a Mobile Device 2024
- Hackster.io** Tracking Movement on the Move 2024