Ut Gong

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EDUCATION

University of Washington *Seattle, WA*
B.Sc. in Informatics **GPA: 3.88/4.00 Major GPA:3.98/4.00** Sep 2020 − Dec 2023

Main Course: Matrix Algebra with Applications (3.9), Elements of Statistical Methods (4.0), Data Structures and Algorithms (3.8), Databases and Data Modeling (4.0), Advanced Data Science Methods (4.0), Software Architecture (4.0), R programming for Quantitative Finance (3.8), Search and Recommendation System (3.8)

Skills: Java, JavaScript, Python, R, C#, MySQL, Unity3D, Figma

EXPERIENCE

LT Gaming Macau, S.A.R.
Research Scientist *Apr 2024 − Present, Part-time*
- Conduct research on **player–AI interaction**, **game agent algorithms**, and **accessibility** to enhance adaptive behavior and inclusivity in XR gaming environments.
- Develop and evaluate **XR gaming prototypes** integrating spatial interaction, multi-agent dynamics, and empirical user studies.

Harvard John A. Paulson School of Engineering and Applied Sciences Massachusetts, USA
Research Fellow *Aug 2024 − Present, Full-time*
- Leverage **computational models** to advance accessible research in the sports domain, including **injury detection**, **rehabilitation**, and **immersive audience experience**, under the supervision of Professor Hanspeter Pfister.
- One research outcome was published in the **VAHC Workshop at IEEE VIS 2025**.

Zhejiang University State Key Lab of CAD&CG Zhejiang, China
Research Assistant *Jun 2023 − Jun 2024, Full-time*
- Conducted research under Professor Yingcai Wu on **accessible sports analytics** through **data visualization** and **mining** to enhance user engagement and communication.
- Developed interactive visualization techniques on emerging **XR platforms** (Oculus Quest, HoloLens) for dynamic analytics; one research outcome was published at **IEEE VR 2024**.

JD Intelligent Cities Research Beijing, China
Algorithm Engineer Intern *Jul 2022 − Dec 2022, Full-time*
- Collaborated with Dr. Yu Zheng and Dr. Jie Bao on **urban computing** research during the COVID-19 pandemic, developing **data mining** and **visualization** systems for patient-chain tracing and community risk assessment.

PUBLICATIONS

11. **Ut Gong**, Yibo Meng, Ye Wang. "From Silence to Care: Exploring AI-Mediated Approaches for Healthcare Communication." *CSCW 2026* (Ongoing).

10. Charles Perin, Charles-Olivier Dufresne-Camaro, Maxime Cordeil, **Ut Gong**, Christophe Hurter, Pourang P. Irani, Jade Kandel, Ang Li, Tica Lin, Ben Pearman, Yalong Yang, Lijie Yao, Wesley Willett. "First-Person Visualization for Sports and Physical Activities: Challenges and Opportunities." *IEEE Computer Graphics and Applications (CG&A)* (Ongoing).

9. **Ut Gong**, Jiaqi Hou, Qihan Zhang, Stefanie Zollmann. "TactiCast: Context-Aware Viewpoint Blending for Immersive Tactical Analysis." *IEEE VIS 2026* (Ongoing).

8. **Ut Gong**, Rong Fu, Yibo Meng, Zeyu Chen, Yan Guan. "CLEAR: A Bidirectional Framework for Enhancing Doctor-Patient Communication in Resource-Constrained Healthcare Settings." *CHI 2026* (Under Review).

7. Yuting Chen, **Ut Gong**, Yiyang Yang, Can Chen. "NV-MKCore: Visualizing Large-Scale Networks by Identifying Mutual K-Core." *CHI 2026* (Under Review).

6. Weichen Sun, Tan Tang, Yuxiao Yang, Lu Ying, Ut Gong, Junxiu Tang, Yingcai Wu. "CABoard: Creating AI-driven Dynamic Collage Arts to Enhance Visual Communication." *CHI 2026* (Under Review).

5. Ut Gong, Weichen Sun, Shuhan Liu, Yang Liu, Tan Tang, Yingcai Wu. "TimeFolder: A Universal Framework for Enhancing Visualization Across Time-Oriented Data Methods." *Information Visualization* (Under Review).

4. Chunggi Lee, Ut Gong, Tica Lin, Hanspeter Pfister. "VAIR: Visual Analytics for Injury Risk Exploration in Sports." *16th Workshop on Visual Analytics in Healthcare (VAHC) at IEEE VIS 2025* (Accepted).

3. Stefanie Zollmann, Ut Gong, Tobias Langlot. "Augmented Reality for Supporting Accessible Sports Spectating and Training." *Metaverse CHI 2025 Workshop* (Accepted).

2. Ut Gong, Qihan Zhang, Ziqing Yin, Stefanie Zollmann. "Collaborative XRTactics: A Formative Study on Tactical Communication in Outdoor Team Sports." *First-Person Visualizations for Physical Activities Workshop at IEEE Visualization Conference (VIS) 2024* (Accepted).

1. Ut Gong, Hanze Jia, Yujie Wang, Tan Tang, Xiao Xie, Yingcai Wu. "VolleyNaut: Pioneering Immersive Training for Inclusive Sitting Volleyball Skill Development." *IEEE Conference on Virtual Reality and 3D User Interfaces (VR) 2024* (Accepted).

SELECTED PROJECTS

HoopGuard   Harvard Visual Computing Group
- Developed a tool in collaboration with professional biomechanists to analyze basketball injuries using pose estimation and tracking techniques.
- Implemented features for comparing athletes' poses to similar poses from their own performance or others, with advanced visualizations to interpret angular velocity and biomechanical data.

Luminiscent Flora: The Breath of Life   Self
- Developed a VR mindfulness experience that integrates breath-controlled interactions with nature, using an IoT device to transform user breathing into dynamic ecosystem growth.
- Created a three-stage virtual environment where user breathing generates water drops that nourish and evolve mushrooms, fostering a calming, immersive connection between breath and nature.

CardMaster   LT Gaming
- Developed a specialized gesture module to enhance digital card games with advanced hand tracking and gesture recognition.
- Collaborated with a hometown company to implement features that improve user interaction and gameplay experience through intuitive hand gestures.

StoryPartition   JD Intelligent City Research
- Proposed and developed StoryPartition, a novel storyline visualization algorithm designed to optimize storyline layouts for visual exploration of large-scale interaction datasets.

AWARDS & ACHIEVEMENTS

Dean's List: An accolade exclusively designated for high-achieving undergraduate students at the University of Washington's Information School. *(Sep 2020 - Jun 2023)*

Elite Institutions Program Fellowship: The Government of the Macao Special Administrative Region's Education and Youth Development Bureau provides prestigious scholarships to support exceptional students in pursuing their education at renowned institutions. These scholarships, limited to 10 awards per year for the entire region of Macau, aim to assist outstanding individuals in accessing education at top-tier institutions. *(Sep 2021 - Jun 2024)*

ACADEMIC SERVICES

Reviewer ChinaVis 2024, PacificVis 2024