Han Zhang

Email: hzhan206@jh.edu
Mobile: +1 530-760-8211

EDUCATION

Ph.D. in Computer Science   01/ 2024 – now
Affiliated with the Laboratory for Computational Sensing and Robotics.
Primary advisor: Mathias Unberath
The Johns Hopkins University

M.S in Biomedical Engineering   08/ 2022 – 12/2023
The Johns Hopkins University

B.S. in Biomedical Engineering with Honors   09/ 2018 – 06/2022
University of California, Davis

AWARDS

1. LCSR Fellowship for Outstanding Incoming Ph.D. Students — 2024
2. Best Project Award *in Computer Integrated Surgery II, Johns Hopkins University* — 2023
3. Best Project Award *in Haptic Interface Design, Johns Hopkins University* — 2022
4. Excellence in Manufacturing Award *at Senior Design, University of California, Davis* — 2022
5. Dean's Honor List, *College of Engineering, University of California, Davis* — 2022

TEACHING

1. Computer Integrated Surgery II EN.601.456/656, Project Mentor — 2024
   - *"Measuring Variability of Pelvic Standard Views in Virtual Reality"*
   - *"A Cannula Marker Body for Tracker-free Surgical Navigation during Kirschner Wire Placement"*
2. Introduction to Augmented Reality EN 530.491/691, Course Assistant — 2023
3. Interface Design for Human-Robot Interaction EN 530.491/691, Teaching Assistant — 2023

PRESENTATIONS & DEMOS

1. IEEE World Haptics 2023 Conference, Delft, Netherlands — 2023
   "3D Hapkit: 3-degree-of-freedom (DOF) Haptic Device using a Delta Parallel Mechanism"
2. Johns Hopkins University LCSR Industry Day, Baltimore, USA — 2023
   "PelvisVR: Recreating Pelvic Trauma Surgery in Virtual Reality"
3. 2022 UC Davis College of Engineering Design Showcase, Davis, USA — 2022
   "THF:Radiolucent Hand and Wrist Fixation Device for Intraoperative Fluoroscopy"

PUBLICATIONS

1. B. D. Killeen* & **H. Zhang*** et al.: Stand in Surgeon's Shoes: Virtual Reality Cross-training to Enhance Teamwork in Surgery. *The 15th International Conference on Information Processing in Computer-Assisted Interventions*. In Review.
2. C. Kleinbeck, **H. Zhang**, et al.: Neural Digital Twins: Reconstructing Complex Medical Environments for Spatial Planning in Virtual Reality. *The 15th International Conference on Information Processing in Computer-Assisted Interventions*. In Review.
3. B. D. Killeen, **H. Zhang**, et al.: Pelphix: Surgical Phase Recognition from X-ray Images in Percutaneous Pelvic Fixation. *The 26th International Conference on Medical Image Computing and Computer-Assisted Intervention. https://doi.org/10.1007/978-3-031-43996-4_13*
4. **H. Zhang**, et al.: 3D Hapkit: A Low-Cost, Open-Source, 3-DOF Haptic Device Based on the Delta Parallel Mechanism. *Work-in-Progress Paper, 2023 IEEE World Haptics Conference*, July 10-13, Delft, Netherland

SERVICES & LEADERSHIP

Reviewer *International Conference on Information Processing in Computer-Assisted Intervention (IPCAI)*   2024
Team Leader in Microfluidics, *BioInnovation Group at University of California, Davis*   09/2021 - 06/2022